CHAPTER I

INTRODUCTION

I

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A great deal of social behaviour may be explained, and traditionally has been explained by social anthropologists, with reference to rights and obligations arising out of membership in corporate groups. Such analysis was especially successful in societies where corporate groups are large and of wide scope. In a great many simpler societies these corporate groups define their members' rights and obligations with reference to the principle of descent, which accordingly offered an excellent analytical and comparative framework for anthropologists studying these societies.

It often happens that the participants in a social action do not behave as members of the same corporate group but rather as representatives of different and – for the purpose of the action – opposed social groups. The regularities found in this type of interaction have been the subject of exchange theory, as developed notably by Mauss, Lévi-Strauss, Homans, Blau, Barth and certain authorities in political, economic and religious anthropology. Although this theory has attained a high degree of sophistication, field anthropologists generally have preferred to organise their analysis around corporate groups and the principle of descent, as this seemed to provide explanations for many interesting institutional phenomena. When the workings of the 'principle of reciprocity' have been inquired into by ethnographers, these inquiries have tended to be in specialised areas of the culture, and only rarely have been based on the assumption that the explanatory value of the 'principle of reciprocity' might equal that of the 'principle of descent'.

Most ethnographers working in Melanesia, while following the traditional descent-based method of analysis of social structure, have been keenly aware of the paucity of corporate groups in that area, their extremely limited scope and, in contrast, the strong emphasis placed upon the principle of reciprocity. One reaction to this situation has been the 'configurational approach' advocated by Pouwer, which would place the principles of descent, reciprocity, residence, siblingship and some others not specified, on the same level, and the comparison of societies on the basis of the relative weight given to each principle. More recently some excellent ethnographies have appeared in which the importance of the principle of exchange is well recognised (e.g. Wagner 1967, Strathern 1971, Young 1971). But even when this approach is accepted as a basis of ethnographic operations, it is still not clear on what methods we may rely for the analysis of the working of the principle of reciprocity in primitive societies.

Exchange may be viewed from two opposite yet complementary starting

121 points. First let us consider exchange partners as though they are strangers, with distinct destinies and personal interests, who decide to seek an alliance with one another for reasons which may range from psychological attraction to economic expediency. From this viewpoint the establishment and maintenance of a social relationship is always problematical and incomplete. The problem of how social exchange can ever get started has been a subject of speculation not only for [773] social scientists but also for the Melanesians themselves.[1] In the Orokaiva [437] folk-system the starting mechanism of an exchange system is presented in the form of a myth recounting a unique free gift made by a demi-god whereby the exchange cycle was set in motion. Historical change is represented by the emergence of a new demi-god setting up new exchange cycles. Once the relationship is started, it is composed of a perpetual cycle of exchanges between the two partners.

We may call this view of exchange phenomenological because it starts from *ego's* experience of a social relationship. *Ego* experiences *alter's* world as transcendant. As Husserl and Schutz have pointed out, social relations are necessarily based on an idealisation of the 'interchangeability of standpoints' (Schutz 1967: 126, 312–29). For that reason they are always to some extent precarious and incomplete. If our method of ethnography is to go beyond pure phenomenology, we also need to view exchange from a second viewpoint which I shall call analytical. From this viewpoint, it is impossible to conceive of the making, receiving and reciprocating of gifts by individuals in any culture unless that culture has conceptualised in some way the complementarity of donor and receiver. This notion of complementarity is inseparable from all our discourse about giving and receiving. For instance, in the present work I shall write a good deal about the exchange relationships between mother's brother and sister's son, husband and wife, son-in-law and father-in-law, friend and friend, creditor and debtor, victor and vanquished. Not only have the patterns of relationship linking these dyads been laid down by Orokaiva custom, but the complementary nature of these relationships is already implicit in the words I have used to describe them.

Although one might, with Nadel (1957), describe these dyads as logically related *roles*, this could give the impression that I am concerned merely with a set of rights and obligations that the role partners have *vis-à-vis* each other. The present work, however, deals with economic and psychological as well as normative aspects of dyadic relations. In a study of corporate groups, one must assume that exchanges between a dyad (*Ego* and *Alter*) are determined by corporate obligations. In a study of exchange systems, however, one must assume that the exchanges are in principle voluntary, and that normative rules specify no more than a code of behaviour by means of which it is commonly believed that *Alter* may be induced to do what *Ego* wants. (This desired object is often no more than the establishment or maintenance of a social relationship.) There are often no positive rules obliging A to fit in with E's wishes if E performs some specific act of liberality. For reasons shown in detail in later chapters, I prefer to think of acts of giving as magical rather than as obligating devices. I do not thereby question the importance of norms in explaining social regularities. Magic certainly contains norms: acts which are regularly performed to bring about certain ends because such acts are thought to be especially effective in eliciting a generous response.

There is nothing very new in the above view of exchange analysis, which may be found in Malinowski and also in Mauss, provided that one reads the *Essai sur le don* in the French original rather than in the English translation.[2] The question considered by both these authors – and also by sociologists such as Homans and Blau -- is how persons who have no prior obligations to one another can set up and maintain viable social relationships. In the simplest cases, and it was these that engaged the attention of Malinowski and Mauss, such transactions can be set in train by the proffering of one or more objects of exchange for which the donor later receives in exchange an object belonging to the same 'sphere'. Firth, Steiner, Bohannan, Salisbury and others have distinguished between transactions of this type and more complex ones called 'translations' (Steiner) or 'conversions' (Bohannan). Lévi-Straussian theory tended to follow the same tradition, as it dealt in great detail with transactions where women were exchanged for women while touching briefly upon marriage 'by purchase' which might be classified as a conversion.

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For the task I have undertaken it is necessary to widen the range of objects of exchange in two directions; this will also greatly increase the importance that has to be accorded to 'conversions'. First, we should include as 'objects of exchange' the various types of social behaviour analysed by Homans and Blau: influence, prestige, power, authority, compliance, and so on. Now if these are treated as objects of exchange, it will be seen that asymmetry (or as Blau puts it, in a term not available to anthropologists, 'unilaterality') is characteristic of most transactions involving such objects of exchange. A person who gives a service receives influence, but the person who 'gives' the influence cannot 'receive' influence in return; he receives only service. Being inferior in status, any service he gives will gain him, not influence, but perhaps material goods, or perhaps a service of a different kind. Conversions are a normal phenomenon in social exchange.

We may further widen the concept of exchange if we include phenomena which are explained by people such as the Orokaiva as being similar in nature to social exchange. The Orokaiva view man and pig, pig and taro, coconut and betelnut, man and spirit, etc. as similar to exchange partners, a similarity which they express in mythology, philosophy, ritual and custom. In the course of this book we shall see exchange-oriented folk-models of explanation applied by the Orokaiva not only on the social, but also on religious, ecological, ritual, physiological, botanical, economic, technological, and philosophical levels. Exchange thus appears as pervasively as an *explicans* in Orokaiva culture as descent appears in some of the African societies analysed by anthropologists of the Radcliffe-Brownian school. Perhaps it appears even more pervasively, for on these levels, too, conversions are extremely frequent occurrences. Clearly, in transactions between partners such as man/spirit, man/pig, the prestations offered by each of the partners would be of a different order.

Such conversions, at any level, tend to be problematical. The exchange partners face each other as opponents; they have widely different objects of exchange to offer each other. Whether a social relationship between these opposites will actually be established in any given case depends on contingencies.

121 I shall take as a simple example a relationship between an offender and his victim. The former has suffered some misfortune which has been put down to sorcery inflicted by the person he has offended. The objects of exchange are: reparation by the offender (e.g. by payment of a pig) and forgiveness to be offered by the offended party. This is a highly problematical transaction. There is an intervening ritual that must take place before the transaction can be completed. This ritual includes a common meal. Even then it is not certain whether the misfortune really will be removed.

Here we may speak of a cycle of exchanges which may be interrupted at any point. If the cycle is not closed, it follows that the social relationship between the opponents has failed somewhere along the line. They will remain enemies. More is involved here than a mere exchange between a reparation payment and a willingness to forgive. Because of the magical implications and the unpredictability of success, the transaction is far closer in essence to a sacrifice which may or may not be accepted by a deity. The 'gift' of a pig, the common meal and all the other ritual may be compared to a sacrifice. We may thus speak of mediating links that are often inserted in a transaction to ensure its efficacy. Lévi-Strauss has used the concept of mediation in his treatment of primitive philosophic systems.[3] I think it is also useful in the discussion of exchange and sacrifice as long as it is remembered that in a classificatory system a 'mediator' is an actual intermediary between two real existents, whereas in a sacrificial or transactional scheme it is a magical device for establishing an illusory union between self and other.

In summary, an 'exchange cycle' in the sense intended here contains three pairs of elements: (*a*) the basic elements placed in opposition; (*b*) the objects of exchange entering the transaction on each side; (*c*) the mediating objects or acts that may be interposed as a prestation moves from A to B and as a prestation of a different kind moves from B to A. Such models of exchange cycles, developed by the investigator on the basis of his understanding of indigenous thought patterns, will be useful in the explanation of institutions, as Orokaiva institutions tend to appear at some point in such cycles. The models will reveal their relationship to other elements in the cycles and their conceptualisation in the context of exchange.

An interesting consequence of these models is that they place elements of the material culture on the same level as social institutions. While this similarity should not be pushed too far, it is still inevitable that in this type of ethnographical analysis material culture and technology should be given a far greater place than is customary in social anthropology. Let us take, as the most obvious example, the relationship between son-in-law and father-in-law, in the field of marriage exchange, the prospective son-in-law having abducted or eloped with his prospective bride. Here the essential exchange is characterised by what Sahlins might call 'negative reciprocity': the son-in-law's act of abduction is paid back by a number of hostile acts on the part of the father-in-law, varying according to the power of the latter's anger. A number of ritual acts, services and gifts of specified types act as mediating links, failing which the father-in-law would not even recognise the relationship as an affinal one. Thus objects such as pig, taro and feather ornaments appear as mediating links in the hazardous process of establishing an exchange cycle.

Now, if we regard such objects as analogous to sacrifices, as I have suggested, and adopt Lévi-Strauss' theory of sacrifice, (developing the theory of Hubert and Mauss) we need to demonstrate, in the case of all these mediating links, that each gift object can be identified, from one viewpoint, with the giver and, from another viewpoint, with the receiver. Our understanding of the institution of marriage thus depends vitally on our understanding of taro-symbolism, pig-symbolism, etc.

In our analysis, the marriage institution is represented by a set of elements in exchange cycles. The latter cannot be understood unless we know precisely how the exchanges are mediated. We must thus know what various material objects symbolise in given contexts, in exchanges between persons standing in specified relationships. But these symbolisations in turn arise out of a body of myths, ethnoscientific notions, rituals and technological practices related to the objects in question. In the present book the analysis of these symbolisations precedes the systematic discussion of social relationships, as it is found that these relationships are almost invariably mediated by the transfer of material objects so that we have to be clear about the former before we can understand much about the latter. If the method set out here finds favour, it may lead to an increased interest in material culture on the part of social anthropologists.

III

In the study of symbolism, we need to combine a synchronic and diachronic perspective. Thus, a person making a gift is usually involved in an ongoing (diachronic) relationship, but if the gift is made in a ritual context, there is likely to be some religious belief in its efficacy. In New Guinea such belief tends to be validated by a myth in which the gift in question is made by a primordial donor whose action has since, both in form and substance, been imitated by man. Such imitation might well be called a form of magic, in as much as it calls forth from the recipient a desired response not otherwise obtainable. F. E. Williams, who first noted this New Guinean technique of imitating actions of culture-heroes for magical purposes, gave it the term 'magic of impersonation' (1932–3; 1940: 135–7, 341–3; 1940–2: 82–3, 115–21).

The method we follow thus requires a detailed study of myths. One may say that a person making a ritual gift uses a myth as a charter for his behaviour. Malinowski, noting this correspondence, suggested that such myths are invented to account for previously existing behaviour. Such a view can never be wholly rejected; we may well argue that one cannot imitate a god unless one has previously, to some extent, invented him and thus imbued him with one's own action patterns. On the other hand, such invented patterns are not intelligible in themselves so that we need a structural analysis to make sense of them. Hence, the present work makes some limited use of Lévi-Straussian methods of myth analysis.

Nonetheless, the present work is basically an ethnography. No theory of exchange has been offered here, only an analysis of ethnographic data, indicating how Orokaiva conceive of the exchange of certain objects in which they have a special interest. In the course of analysis, I have drawn on a few theoretical sources in rather eclectic fashion. I believe that the method of description I have

● 121 followed is especially appropriate for making sense of Melanesian societies, and perhaps other societies also. For the method to be consolidated, a second field study will be necessary, explicitly and systematically oriented towards communication systems, boundary systems, proxemics and the like, covering the communication of women, material objects and messages, and including at least some comparative perspective and some myth analysis. The present work, however, seems a necessary first step in plotting such new approaches to ethnography.

121 My work was much facilitated by a wealth of previous studies of the
Orokaiva,[4] of which the most valuable is still F. E. Williams' *Orokaiva Society*
114 (1930). Re-study proved it to be a highly accurate work, focusing on the most challenging problems posed by the social system. Among these are the bilateral tendencies in the kinship system classified as patrilineal; the plant emblem groups; the relation of 'homicidal emblems' to initiation rituals and especially the subtleties of the value system, brilliantly handled in the chapter on 'Morality'.

A successor can fulfil various useful offices, some minor, some major. First, Williams' work can be used as a basis for a study of culture change. I have done this to some extent in an earlier work (Schwimmer 1969) and in the present work where the argument demanded it. Secondly, *Orokaiva Society* provides a
composite picture of a number of closely related, yet by no means identical
[101] systems (Mountain Orokaiva, Aika, Yega, Binandere, etc.) In this re-study, I confined myself to Mountain Orokaiva, reserving for another occasion a survey of the diversities in degree of patrilineality, kinship terminology, ritual forms, leadership patterns and the like, all related to the ecological base and settlement history.

Thirdly, Williams' study of the Orokaiva was made early in his career. When reading his later works, we note analyses (on sex affiliation, 1932; on dual division, 1924, Ch. VIII, 1936 Chs. VI–IX, 1940: 32–5; on 'disease and its treatment 1940–2: 90–105; and on totemic groups, e.g. 1940) that would apply with minor variations to the Orokaiva, but are not developed in Williams' writings on that tribe. We need not suppose that in the Northern District Williams failed to observe what he saw and described in relation to Kerari or Elema. It is more likely that he was progressing steadily along a highly individual analytical path, leading him only gradually to perceptions which were theoretically far ahead of his times. In any case, in my analysis of Orokaiva plant emblem groups (Ch. X) my presentation is very close to Williams' work on the Elema, although it departs from that on the Orokaiva. Similarly, I have drawn on his writings on 'sex affiliation' among the Koiari and 'dual division' in the Gulf District, on disease at Lake Kutubu and so forth, thus bringing to bear the insights of Williams' maturity on Orokaiva material.

These are the minor tasks. The major one is to continue the search for system in New Guinea societies on the basis of these insights and of the theoretical discoveries of the last thirty years. Thus this book is in a sense a dialogue with Williams to which I contribute new data that seem relevant.

IV

The ethnography is divided into three parts. In the first part, after providing a brief general sketch of Orokaiva culture, I shall examine the 'starting mechanisms' of Orokaiva exchange cycles, both in traditional institutions (Ch. III) and in institutions developed since the British-Australian conquest (Ch. IV). The second part of the study is concerned chiefly with objects of mediation: land, taro, pigs, minor foods and ornaments (Chs. V–IX). In the third part the focus shifts to the relations between exchange partners mediated by the prestations analysed in the preceding chapters. 121 128

Although my presentation of Orokaiva social structure in this part of the work is not intended to be controversial, the focus differs from that of earlier ethnographies and here and there earlier findings had to be questioned in the light of fresh evidence. Orokaiva society contains several types of groupings (clan, local clan group, lineage, plant emblem group) whose members, according to informants, are recruited exclusively on the basis of agnatic descent. Earlier investigators have emphasised these patrilineal characteristics by equating the lineage and clan emblem group, proclaiming them both to be segments of local clan groups, and by treating the local clan group as something like a segment of a clan. My own analysis, however, will be concerned more with clan fusions and fissions, with irregular recruitment within the plant emblem group, and with the lack of evidence for agnatic connection between lineages and local clan groups. My evidence shows that the non-agnates recruited into these putatively agnatic groupings are mostly uterine kin. But above all I shall try to establish that these departures from the supposed agnatic norms are not cases of irregularity or deviance, but an integral part of the Orokaiva kinship system. I shall suggest that normally clans are not intrinsically agnatic but rather that they arose out of alliances between smaller groups whose original link was affinal. The effect of this argument is to show the narrow limits of range and scope within which Orokaiva patrilineal corporations operate, and thus to emphasise the importance of the exchange system as a principle of social structure. 121 614

As soon as we extend kinship analysis beyond the conjugal family, we observe that mediation is carried on not only through non-social objects used as gifts or prestations, but also through social objects used as intermediaries. Thus, in the relation between sister's son and mother's brother there is an intermediary who is mother of one of the partners and sister of the other. Similarly, the relation between two brothers-in-law is mediated by a woman who is wife of one and sister of the other. Men also often act as mediators between exchange partners when these are not linked by kinship, or when the exchange partners are female. 121 571

The principles of exchange are the same whether the objects of meditation be social or non-social. In both cases there are two partners, *ego* and *alter*, who establish or maintain a social relationship. The object of mediation, whether social or non-social, is so chosen that both *ego* and *alter* are – or become – closely identified with it. If *ego* and *alter* are male non-agnatic kinsmen, the mediator must be a woman· if they are female non-agnatic kinsmen, the mediator must be a man. In either case, the concept of an object of mediation implies that at the beginning of the transaction *ego* had some exclusive claim

121 upon the man or woman who is being 'transferred', but as the result of the
571 transaction this claims passes to *alter.*

The most familiar example of such a transfer is that of a woman who is 'given' by her brother to her prospective husband. When Lévi-Strauss developed
121 the exchange or 'alliance' theory of social structure, he mainly discussed this
581 type of transaction, whereby a social relationship between two male partners is created by the transfer of a woman from the control of one to the other. It is clear, however, that for every man who marries, a new relationship is also created between women who become sisters-in-law. In a very significant sense, the wife has taken the man from the sister. The Orokaiva acknowledge this aspect in two ways: by the gift of a pig made by the wife to the sister, and by the term of address *bi* (= penis) used between sisters-in-law.

121 We may thus see social structure as the product of a web of mediation. The
571 usefulness of such a concept depends very much on the extent to which these intermediaries are institutionally involved in dealings between partners. Among the Orokaiva, their roles as intermediaries in exchanges between men are well articulated. As wives, as sisters and as mothers they link the very small patrilineal kinship groups into social units of a viable size. The system of marriage is a rather involved one, containing elements of restricted as well as of complex generalised exchange. Once this system of marriage is fully understood (Ch. X), the basic workings of Orokaiva society stand fairly clearly revealed. The study of Orokaiva exchange would not be adequate, however, without a brief consideration of the independent friendship network and the system of ranking, especially as it has affected recent Orokaiva-Australian relations (Ch. XI).

121 We thus return, though with a slightly more specific methodology, to Mauss' concept of exchange as a 'total phenomenon', in the sense that we posit the interrelations of notions of exchange occurring at any level of conceptualisation, social and non-social. It is in the very pervasiveness of such notions throughout the culture that we find evidence for its dominance in Orokaiva thought and institutions and for its power to mould social life.

REFERENCES

121 1 I refer especially to the discussion of the 'starting mechanism' of exchange in Gouldner 1960 and to Blau's (1964) criticism of Gouldner. My own view is that the approaches of these two authors are complementary.

2 Cunnison's translation (1954) suppresses in many passages Mauss' concern with economic and psychological factors. Compare Mauss: 'Quelle est la règle de droit *et d'intéret* qui, dans les sociétés de type arriéré ou archaïque, fait que le présent reçu est obligatoirement rendu? ' (1966:148) and: 'In primitive or archaic types of society, what is the principle whereby the gift received has to be repaid? ' (Cunnison 1954:1). Compare also: 'ce type de droit et d'économie' (Mauss 153; Cunnison 5); omission by Cunnison of the last paragraph of Mauss 173; 'ces concepts de droit et d'économie (Mauss 267; Cunnison 70); 'en règles de droit, en mythes, en valeurs et en prix' (Mauss 275, Cunnison 77), etc. Recent criticism of Mauss by economic anthropologists sometimes reads as though it is based on translation rather than original.

3 For Lévi-Strauss' discussion of the notion of mediation see *La Pensée Sauvage*, Ch. VIII and *passim.*

Most of these capital goods enter the village by gift or gift exchange. Some 437
types (e.g. kitchenware and clothes) may pass from one village to another by 438
way of brideprice, but other types of gifts (e.g. radios) are hardly ever made in
a ceremonial context, but only to close kinsmen. I am not at all sure whether, in 439
Salisbury's terminology, the latter type should be classified as a luxury or a
ceremonial item.

One conclusion emerging from the various studies made in the 1960s is that 434
total village income has risen rapidly among the Orokaiva. The sources vary. it 178
may be due to outside employment of persons still ordinarily resident in the
village, to increased cash cropping, to sale of food surpluses or to increased
remittances from local men employed away from the village.

4. *History*

The main object of this section is to provide some background for the study of 121
Orokaiva exchange, especially between tribes and between Orokaiva and
Europeans.

In physical constitution, Williams considered the Orokaiva to be 'midway 144
between the typical Papuan and the typical Melanesian'. Dupeyrat, who has
recently (1965) surveyed the evidence, considers the Orokaiva 'basically of the
Papuan Mountain type', but mixed with Polyno-melanesian elements, late-
comers in Papua, who spread to the Northern District via Maisina and Manigela.
It is certainly true that one notices more Polyno-melanesian features along the
coast (e.g. among the Yega) than inland.

In the period just prior to European occupation, the most notable aspect of 174
Orokaiva history that can be reconstructed is pressure from the dense population
on the Mount Lamington foothills upon the sparser populations surrounding the 167
mountain on all sides, but especially to the north and east. These sparser
populations (to whom Williams gives the common name Sauaha) pressed upon
the still sparser populations dwelling in the still less fertile country on their own
northern and eastern borders (see Chinnery and Beaver 1916; Williams 1930:
152–4; Monckton 1921: Ch. XXIV; Crocombe and Hogbin 1963: 14–16).

In 1888, in response to Australian pressure, the British government annexed 175
Papua. The first administrator, Sir William McGregor, made many arduous 648
exploratory expeditions while establishing his rule in this vast unknown
territory. On one of these expeditions he ascended the Mambare river to its 177
highest navigable point, a few miles above Tamata creek, where he discovered
the existence of gold in the sand and shores of the river (Monckton 1921: 78;
Murray 1912: 326–8). This was the first discovery of gold in Papua with
important commercial prospects, and led to a major movement of prospectors
and miners to the Northern District. Relationships with the Papuans were bad
from the beginning, and there were numerous killings by both sides. In 1900 150
miners were working on the Yodda river; the Yodda and Gira goldfields together
produced 15,000 oz. of gold (Murray 1912: 333). In order to stop the
bloodshed, resident magistrates were stationed at Ioma, along the Mambare and
at two places on the Kumusi river, which was for some years the access route to
the Yodda field.

The early relationships between Orokaiva and Australians may be gleaned 175
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CHAPTER III

THE IDEOLOGY OF INTERTRIBAL EXCHANGE

1. *Experiences with the Exchange System*

Many authors have been fascinated by Melanesian ideas of reciprocity and 121 exchange. Malinowski was the first to show in detail that these ideas are a central theme in Melanesian cultures; his lead was followed by Bateson, Belshaw, Burridge, van der Leeden, Pouwer, Reay, Sahlins, Salisbury, Strathern, Wagner, Young and many others. The literature on Orokaiva exchange, however, is less comprehensive than for some other parts of Melanesia. Williams, the principal ethnographer, has written a great deal on reciprocity and marriage exchange among Papuan groups, but this was mostly in his later works (1934, 1936, etc.), which do not deal with the Orokaiva. Some phenomena, as he records in his later ethnographies, might in some instances just as well have been found among the Orokaiva, and here it will be my role to fill in the record. Very recently, Waddell and Krinks (1968) have collected detailed statistical data on Orokaiva exchange. Valuable as this material is, it is concerned with economic geography rather than social organisation and ideology.

All ethnographers who have worked among the Orokaiva seem to be well 431 aware of the importance of the exchange system. Whenever I met one he soon came up with the key question: 'How did you get on with *hoija*?', *hoija* being an 123 Orokaiva word meaning 'exchange between non-kin'. Fieldwork in any area probably has its tensions; among the Orokaiva the initial distrust of, perhaps the hostility towards, the fieldworker finds its expression in the rather aggresive offering of (sometimes unwanted) gifts and services, followed immediately by peremptory demands or ceaseless wheedling for return prestations. Every fieldworker thinks of some 'solution' to this problem: accepting everything (because according to Mauss the acceptance of gifts is obligatory), accepting just a little from everyone, accepting prestations from only a carefully defined and limited group, or maybe accepting nothing, though I cannot imagine this. What all these anthropologists are talking about, though from a purely practical rather than a theoretical viewpoint, is how they should behave as exchange partners, given their own peculiar status. It should be a comfort to them that Firth has recently (1967) challenged Mauss' proposition that the acceptance of gifts among primitives is obligatory. They will now probably have fewer uneaten potatoes and German taro lying on their verandahs!

In all the villages I visited events followed the same kind of sequence. I always received an effusive welcome and many gifts for which no return was asked. This

2. *Folk Explanations of Exchange*

121 Having noted how the Orokaiva diagnose cases of social conflict, let us now explore the social philosophy underlying these diagnoses. My argument will be in three steps. First, I shall restate in a more generalised form the Orokaiva ideas hinted at in the previous section; secondly, I shall express these ideas in the form of a more abstract model; thirdly, I shall show how the Orokaiva justify their ideas in terms of their own religio-philosophic system.

829 776 Orokaiva social philosophy differs from our own, in the first place by its refusal to recognise the authority of anyone outside the individual's extended family, a characteristic to which I shall give more attention later. If the Orokaiva, by and large, order their lives by the same moral principles, they would explain this by their common belief in certain demigods whom they all regard as their ancestors and as sources of authority, and who created certain institutions embodying moral norms to which they all subscribe. Not only do they obey the precepts of these demi-gods, they also re-enact their feats in ritual and identify with them during ceremonies, and in many of their regular expressive activities.

773 I shall therefore attempt to reconstruct what these demi-gods are said to have taught the Orokaiva about social relations. This reconstruction requires a brief analysis of some myths in which these teachings are contained. The myths all refer to events in original time. I was told that men, in their primordial or [103] pre-cultural state, were living by the top of Mount Lamington (*Sumbiripa* [772] *Kanekari*), which is traditionally regarded by the Orokaiva as the centre of the universe (Schwimmer 1969). I collected a number of myths explaining the origin of death, strife, fire, houses, marriage, clothing and several other elements of culture. The demigods who transformed human life by introducing these gifts came 'from the mountain'; Sumbiripa himself was the first man to die. He retired inside the mountain and all those who died later are said to stay with him inside the mountain. Hence the rumblings and tremors emitted by the volcano. Two published sources (Tomlin 1951, Benson 1955) show that these beliefs antedate the eruption of 1951.

While men lived by the top of the volcano, there was, according to the myths, no disunity, no quarrelling and no warfare, and men all ate with one another. As they multiplied greatly, so one of the tales records, some of them settled in an unoccupied place at the foot of a *barivo* tree. There they collected saplings, thatch and lashings to build themselves a village. One man stole lashings prepared by another and used them to build his own house. When the owner of the lashings found the thief, the two started to fight. The men present, one and all, became separated into two contending sides which never stopped fighting. *Emboavo aramiko tiketo ijunu avunu ena*: 'Therefore, from that time onwards, they dwelt separately down-valley and up-mountain.' Having started thus, they continued to be alone (*oenga oenga*) and to fight (*isoro ue mitiatera*). Separately cornered they captured, killed and ate each other and thus they then remained. In a final sentence, the narrator of the myth adds that permanent peace has now come and fighting (*isoro*) is finished.

I could not obtain data that would confirm that this stolen cord represents an umbilical cord and that this myth is about the birth trauma. However, the myth

773 Totoima's body, from which all derive their *ivo*. The feast seems to be the
776 occasion *par excellence*, at which the primeval communion is re-enacted. This is,
of course, a point that needs careful empirical demonstration, which will be
574 given in Chapter VII. All I wish to suggest at this stage is the existence of at
least one ritual device whereby the state of permanent *isoro* between social
groups can be overcome, the re-enactment of a communion for which the
Totoima myth provides the mythological charter. Such a communion may be
brought about only by a long series of economic and ritual preparations, such as
a feast requires; there must be an abundance of taro and of pig, there must be
feathers and ornaments, new loincloths, musical instruments and guests willing to
share in the communion. Above all, there must be skilful magic. Even then, the
success of a feast is never predictable, and always hangs in the balance. Thus the
communion between social groups, in this philosophy always remains problematic but, for various practical reasons (the need for alliances in a world at
[829] war) it is frequently attempted. The social philosophy of the Orokaiva, then,
starts from the assumption of the gulf that yawns between man and man, and
proceeds to delineate various techniques (of which the feast is one) to bridge it.

571 We are now able to see more clearly why among the Orokaiva social exchange
431 is rarely effective unless prestations of economic value are exchanged between
829 partners to mutual satisfaction. Relations between social groups are generally
unsatisfactory and hostile, but they can be made harmonious if one side gives
the other a feast, which the other side must reciprocate. The harmony thus
[574] established is an extraordinary state which is sure to be interrupted by
subsequent conflicts, so that feasts must be held periodically to keep group
relationships within the bounds of amity.

Relationships between individuals follow the same pattern, though gift exchange here takes the place of the larger and more formal feasts. If no presents pass between two individuals for some time, this is thought to signify a breakdown of amity and the gradual re-establishment of the *natural* hostility between man and man. Only gift exchange prevents Orokaiva society from presenting the perfect living model of Hobbes' war between all and all. It is largely for this reason that I have chosen gift exchange as the basic principle in my analysis of Orokaiva society.[2]

3. *Towards a Model of Exchange*

121 The feasting myth quoted in the previous section seems to me to embody the essence of Orokaiva social philosophy, in as far as it explains the basic nature of gift exchange relations. My next task will be to translate this myth into the more abstract language of social science, as must be done if its ideas are to be made part of anthropological discourse.

628 A feast tends to be held by two social groups between whom relations have
574 turned somewhat sour. There may have been a war, or a murder, or some other
578 grievous act of violence or there may have been no more than minor friction
between them. One side may suspect that the other performed black magic
against them. Generally speaking, however, by the premises of Orokaiva social
philosophy, both sides will have been storing up some grievances against the
other. Often neither side will be willing to admit to the major responsibility for

121 delayed or altogether flounder and the relationship may be prevented from developing.

Gouldner's answer to this dilemma was that there must be a 'norm of reciprocity', internalised in both parties, which *obliges* the one who has first received a benefit to repay it at some time. Other sociologists, such as Blau (1964: 92–3), do not accept this particular explanation, because they do not believe that all social constraints are normative 'and those imposed by the nature of social exchange are not, at least, not originally'. Blau argues, in short, that the advantages to be gained from entering into exchange relations are psychologically so compelling that dangers and suspicions are insufficient obstacles. Even those who fully agree that not all social constraints are normative may feel dissatisfied with this psychological non-explanation.

Let us now consider how the dilemma can be solved in terms of Orokaiva social philosophy as presented in previous sections of this chapter. Orokaiva recognise that social exchange is precarious but claim to have various (magical) devices which are successful if properly used. These devices appear in my model as mediating elements. Why do Orokaiva believe in their effectiveness? They do so because the mediating devices have been instituted by demigods whose heroic feats they re-enact in their rituals. There is a strict code saying what should be done and how it should be done. The exchange fails if the code is not followed. What we have is not, as Gouldner suggests, one norm of reciprocity, but a wide range of codes deriving their authority from mythical demigods. The 'starting mechanism' is, in effect, the whole of Orokaiva mythology. I have been unable to find a charter in this mythology for any rule that a person who has received a benefit should repay it; in other words, I do not know of an Orokaiva mythical charter for a norm of reciprocity. All I have encountered are rules stating what acts are necessary if certain types of exchange are to be effected successfully.

776 171 773 I shall clarify these generalisations by giving a brief account of the nature of these demigods and of the rules they instituted, so as to be able to set out more clearly their role in the Orokaiva exchange system. The demigods of the Orokaiva resemble those found throughout Melanesia. Not all the cultures who believe in such demigods have a generic term for them. The Marind-anim of Western New Guinea, however, use the term *dema* to refer to all beings who lived in original time, to whom the creation of a feature of the cultural order is ascribed, and who are celebrated in myth and ritual. I shall follow Jensen (1960) and borrow the Marind-anim term, though other terms used in anthropological literature (culture hero, transformer, etc.) have a somewhat similar meaning.

Jensen presents a useful generalised portrait of these *dema*, as they are found in cultures of tropical tuber cultivators. In general, they are not creators of the natural order but rather of the salient features of material, social and religious culture. Very often it is not through his deeds that a person becomes a *dema* but through the circumstances of his death or departure, which make his *dema*-like nature apparent and give rise to an institution. Thus, Totoima became a *dema* as the result of his body being shared among his people; Jomiko and Sirere became *dema* after departing, in their peculiar way, from the world of man. Similarly the coconut *dema* is a girl who was killed and from whose body a coconut grew. Thus she gave the coconut to mankind and, by this gift, acquired the status of

623 working out a development policy, but rather of obeying a sacred formula that
657 came to the Australian authorities from a *dema*-like source and was then passed
177 on as a gift to the Orokaiva.

Are all these gifts derived ultimately, in Orokaiva estimation, from Jesus
829 Christ, or are there other *dema* figures as well to whom these gifts are ascribed?
[123] Who would they be? This is a hard subject for a white anthropologist to inquire
into. Informants answer: 'We do not know. Nobody has told us.' The anthropologist feels uneasily that if anyone knows the source of Western wealth and power, it ought to be himself rather than his informants.

3. *New Exchange Cycles*

121 The image of post-contact history reconstructed here from statements by Orokaiva informants seems unduly dreamlike and idealised. This is because they are statements about the metaphysical starting mechanisms making social relations possible. Turning to the relationships themselves, I find that they are often marred by a severe conflict of interests and values. For the purpose of a brief overview, we shall consider relationships with representatives of three types of European-introduced institutions: church, commerce, and government. Following our theoretical scheme, we shall be especially interested in the objects that are exchanged in these relationships and in the mediating elements that make possible social exchange.

An employer of Papuan labour is interested chiefly in obtaining the
461 compliance of his workers by the payment of money. Usually he is not at all
466 interested in social exchange, but in a contract whereby he acquires the total
829 work output of the worker for the period he is on the job. The Orokaiva,
however, regards all the work he does as part of a social relationship with the
437 person for whom he works. First of all, he expects that person to feed him while
he is working. This is because he has been prevented by the person he is helping
177 from going to his own garden. The employer in New Guinea usually does feed his workers, subtracting the cost of the food from the wages he pays. But secondly, the Orokaiva, lacking a long tradition of wage labour, regards his work as a long series of gifts to his employer enabling him to claim return gifts. He does not think of his wages as being a total discharge of his employer's obligations. They were promised at the beginning, but since then many unpredictable things have happened: he has loyally looked after his employer's interests in a series of small crises; he finds he has additional urgent needs he did not envisage when he agreed to come to the job; he believes his labour has yielded his employer vast profits. As the Orokaiva understand a social partnership, events of this kind all create a claim upon the person who has received help. Thus, the worker keeps on pressing his employer most persuasively for extra gifts of various sorts, in addition to his wages. This pattern is found throughout New Guinea and is known as the *baksheesh* system. Employers often give in to the demands, hand out various extras, and allow for these costs in plantation budgets.[3]

466 The basic significance of the *baksheesh* has already been pointed out by
Mauss (1966: 250–5, 229–32); '*La chose ainsi transmise est, en effet, chargée de*
437 *l'individualité du donateur.*' It rests on a notion that both worker and
177

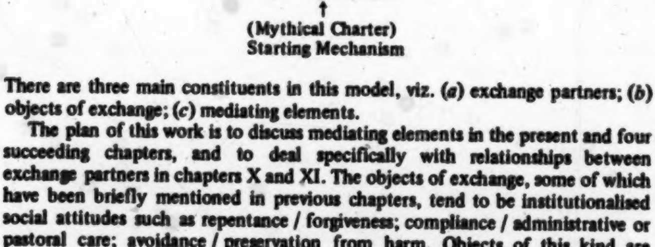
CHAPTER V:

LAND

1. *Mediating Elements*

In the preceding chapters I have set out a method for studying the working 121
of the principle of reciprocity in Orokaiva society. I have shown in a general way 181
how this method may be used for the analysis of traditional institutions and
demonstrated that it is still applicable to contemporary institutions. In the
chapters that follow I shall apply this method to elucidate a wide range of
ethnographic data for some of which no satisfactory alternative explanation has
yet been offered. To recapitulate, we may state the method, as set out so far, in
the following provisional model:

MODEL 10



There are three main constituents in this model, viz. (*a*) exchange partners; (*b*) objects of exchange; (*c*) mediating elements.

The plan of this work is to discuss mediating elements in the present and four 121
succeeding chapters, and to deal specifically with relationships between exchange partners in chapters X and XI. The objects of exchange, some of which have been briefly mentioned in previous chapters, tend to be institutionalised social attitudes such as repentance / forgiveness; compliance / administrative or pastoral care; avoidance / preservation from harm. Objects of this kind are exchanged in virtually all cultures. In deciding whether or not they will engage in such exchanges, individuals weigh the social costs they would incur against the social benefits they might gain. Social psychologists like Homans and Blau have made valuable contributions in this field of study. In omitting consideration of it here I do not mean to imply that it is irrelevant to anthropologists, but it is difficult to develop universal propositions about human exchange and analyse universal processes governing associations, in a work whose main purpose is the

121 eludication of a specific cultural system. The study of objects of exchange requires a book to itself.

My discussion on mediation starts from the principle that gifts are essentially similar to sacrifices. Hubert and Mauss suggested that sacrifice, beneath the diverse forms it takes, always consists in one same procedure: 'This procedure consists in establishing a means of communication between the sacred and the profane worlds through the mediation of a victim, that is, of a thing that in the course of the ceremony is destroyed' (1964: 97). In the same vein, we may say that the gift, beneath the diverse forms it takes, also always consists in the same procedure. Echoing Hubert and Mauss, we may describe this procedure as the establishment of a means of communication between Ego and Alter by the mediation of a thing from which Ego later separates himself.

One of the characteristics common to social exchange and sacrifice is identification between the donor (or sacrificer) and the mediating element (or victim). In the anthropological literature on sacrifice, one of the subtlest and most illuminating accounts of identification is given by Evans-Pritchard when he discusses the relation between men and oxen among the Nuer (1956). Here we find strong economic dependence, deep emotional attachment, the assumption of ox-names by men, religious practices (not involving sacrifice) where oxen serve as a direct means of communication with the unseen world, all of which is summed up by Evans-Pritchard as 'a moral identification, a participation imposed on the individual by his culture and inextricably bound up with religious values' (*ibid*, 257). In this and the next few chapters, I shall show that there is a rather similar relation between Orokaiva individuals and the land, taro, pigs, etc. that they use as mediating elements in social exchange.

Lévi-Strauss (1962: 294–302) has recently argued that this identification of sacrificer and victim is only one of a series of identifications by means of which a connection is established 'between two polar terms, the sacrificer and the deity, between which there is initially no homology or relation of any kind'. These identifications

> *peuvent se faire dans les deux sens, selon que le sacrifice est piaculaire ou qu'il représente un rite de communion: soit donc, du sacrifiant au sacrificateur, du sacrificateur à la victime, de la victime sacralisée à la divinité: soit dans l'ordre inverse.*

Here again the procedure of social exchange is essentially similar to the procedure of sacrifice. Identifications are made at every phase of an exchange cycle: the donor identifies with the mediating element, the mediating element identifies with the recipient. If the recipient is willing to return forgiveness for repentance, and to restore the exchange relationship, he follows the same procedure, in the opposite direction.

How does the mediating element 'identify with' the recipient? This process is best explained by the analogy of the 'sacralisation' of the victim in sacrifice. Hubert and Mauss distinguish two ways in which a victim may be consecrated: there may be fixed rites to confer upon it the religious condition that its destined role demands; or it may be consecrated by the mere fact that the species to which it belongs is joined to the divinity by special links (1964: 29, 122–3). Even so, one of the great anxieties in sacrifice tends to be whether the victim is really a proper one, whether it is god-like, so that the god may identify with it. The only test of propriety and perfection is the practical one of whether the sacrifice is 'accepted', whether the sacrifice actually receives the desired benefit. Success depends on the willingness of the god to identify with the proffered victim, and so can never be predicted.

It is the same with elements of mediation. Their purpose is to attract and seduce the recipient. The donor hopes that the recipient is 'captivated' by a gift, or an appealing speech, or the use of some ritual object. Thus he is induced to cede whatever the donor happens to desire. To a varying extent there are fixed rites to confer upon the mediating element the magical condition that its destined role demands. What these rites are, and whether there are any, depends on the nature of the relationship between the partners, the nature of the exchange, and the nature of the mediating elements themselves. The style of giving is arranged so as to increase the power of the mediating element to entice and seduce the recipient, to overcome him so that he in turn will wish to overwhelm the donors with his generosity.

The intent of using an object of mediation may thus be called magical in the sense of Williams' 'magic of impersonation', i.e. in a rudimentary or elaborate rite, a person identifies himself with a mythical character who has been efficacious in making the gift and obtaining the required result. Hence the mythical charter included in the model is essential to the understanding of the process, as there is no other ground for believing in the efficacy of the transaction. We may thus say objectively that within the Orokaiva cognitive system magical intent always inheres to some extent in elements of mediation.

To be sure, most transactions that actually take place are somewhat standardised and habitual. There are fixed modes of making gifts almost mechanically. Many of the transactions I shall consider are of this kind. At the same time, gift-making always remains to some extent a game of strategy, a way of manipulating an opponent, preferably at the smallest cost to oneself. But this is as true of sacrifice as it is of social exchange. Furthermore, this game of strategy always remains a very emotional one, as the breakdown of almost any social relationship is regarded as a grave threat.

An object of mediation has more than one fixed use. Just as the significance of a word in a language depends on the context in which it is used, the prefixes and suffixes attached to it and its grammatical position in the sentence, so also the significance of an object of mediation may vary according to the existing relationship of the exchange partners, the objects of exchange, the manner in which the mediating object is given and the codes and norms governing the total transaction. The description of a single object of mediation therefore involves semological operations somewhat resembling the description of words in a dictionary. I have not attempted the immense task of compiling a comprehensive catalogue of Orokaiva exchange but contented myself with a limited number of objects of mediation, sufficient to demonstrate a method and to describe some key objects of mediation in Orokaiva culture. If a complete compilation were made it would show the meaning of all gifts that are made for the purpose of mediating social exchange.

Though the concept of mediation used here is inspired by the concept of mediation as developed in the work of Lévi-Strauss and Leach, there are

121 differences that must be clearly stated to avoid confusion. When the two earlier authors speak of mediation, they are usually dealing with real existents which appear as binary oppositions in non-empirical cognitive systems, e.g. earth /sky. The mediating element is likewise a real existent which is physically interposed between the two opposites. e.g. trees, birds. Their physically intermediate position is an empirical fact utilised in the building of cognitive systems, which treat trees or birds as mediators between earth and sky.

When Lévi-Strauss speaks of 'mediation' in the context of sacrifice, he warns that he is not speaking of the same thing: while cognitive systems are 'systems of reference' classifying real existents, sacrifice is a 'system of operations', a technique for obtaining certain results where the opposed elements are: the Self (a real existent, in this argument) and the Other – who is transcendant and may be a god postulated for the sake of obtaining the results. While trees and birds are always physically interposed between earth and sky, a pig is interposed between man and god, or between two exchange partners, purely as an operational strategem. It may be replaced by a different object of mediation (a chicken) or by anything else human ingenuity may invent. Lévi-Strauss describes the difference thus:

> *Les systèmes classificatoires se situent au niveau de la langue: ce sont des codes plus ou moins bien faits, mais toujours en vue d'exprimer des sens, tandis que le système du sacrifice représente un discours particulier, et dénué de bon sens quoiqu'il soit frequemment proféré. (ibid. 302)*

This argument applies to social transactions as much as to sacrifice. Certainly, in social transactions *alter* is a real existent, viz. another human being or group of human beings. Yet this *alter* has one crucial transcendental[1] characteristic, namely that *ego* cannot control his will. In making a gift to *alter* we may feel that by the norm of reciprocity we ought to receive something in return, but we can never be sure that we will. Mediating elements used in social transactions therefore have an essential resemblance to sacrifices. They are real existents which are believed to have 'virtue', i.e. to elicit a desired social return, if given to certain classes of partners in certain circumstances. The purpose of the present investigation is to determine why beliefs in the 'virtue' of various objects of mediation are held among the Orokaiva.

It is readily admitted that the system I am studying here is *'un discours particulier, et dénué de bon sens'* and that it does not provide a classifactory scheme representing the universe. It merits the term 'system' only because each exchange cycle forms a system and success or failure in the use of objects of mediation is advanced by Orokaiva as an explanation of a great variety of interconnected event-structures in time. I shall return to these theoretical questions in the introduction to chapter VIII. It will be useful first to survey some of the more elementary Orokaiva magical recipes for effecting social exchange by means of gifts of land, taro and pigs.

2. *Land and its Transfer: Transactions between the Sexes*

423
171 The first object to be considered is land. A kind of standard profile of the general characteristics of New Guinea land tenure has already emerged from the

423 171 writings of Berndt, Brookfield and Brown, Hogbin, Lawrence, Meggitt, Rappaport, Salisbury, Serpenti, Wagner and several others. The Orokaiva system falls within this general pattern, though with less emphasis on overriding rights held by clan and lineage, and more emphasis on individual rights than, for instance among the Siane and Mae Enga, less emphasis on corporate leadership than among the Garia, and more incidence of duality of rights than among the Chimbu, and so forth. Though the time has come when a comparative study of these systems could profitably be undertaken, it falls outside my present purpose which is to analyse the significance of land transactions, especially among the Orokaiva.

423 437 121 In order to carry out this analysis, we must first describe the basic categories of land transactions. We shall not use the term 'transactions' solely in a legal and economic sense, but more broadly in accordance with Mauss' concept of exchange as a total phenomenon. Thus, land enters crucially in 'transactions' between husbands and wives, and between men and spirits, and these 'transactions' will be considered before we turn to the more familiar topic of transactions between men. Here we have to distinguish between transactions within and outside the patrilineage. Our general argument will be that all of them occur as part of a continuing series of social exchanges, and that useholds granted on varying conditions must be regarded basically as benefits exchanged for other past or future benefits. In as much as paternal protection and filial service are very common objects of social exchange in these transactions, paternal protection being mediated by land grants, we may observe the practical operation of a system of patrifiliation.

423 241 362 A few words should first be said about the significance of land itself. The Orokaiva spend most of their days in their individual garden plots. They are tied to them not only by a total dependence on the produce, but also by deep bonds of affection. A man and his wife like nothing better, generally, than to spend the whole day, and virtually every day, in their garden together. These are intimate places where nobody would go without an invitation and where nobody is disturbed or called away except in a serious emergency. They are the most private places the Orokaiva has, much more private than the village houses where every sound and movement can be seen or overheard. Even so, physical privacy is secured often by no more than a narrow ring of second growth around the cultivations. Many people have a garden house, ornamental shrubs, places to rest and sit. Orokaiva gardens can be very homely and beautiful. People rest there in the heat of the day. They are favourite places for love-making. [833]

581 423 241 [462] [412] The most ubiquitous of all social transactions mediated by the land occur between husband and wife. Perhaps the most important rights and obligations arising out of marriage have to do with garden land. Both the male and female gardening tasks are, of course, learnt before marriage. Bachelors have their own gardens in which they do all the work which is not specifically set aside for women and taboo to men. They clear the land; they help with planting (using the digging stick); they protect the land against pigs and other dangers; they weed. It is a fact, already observed by Williams, that a girl choosing a husband takes serious account of the state of the garden of her intended spouse. She does not like to marry a man whose garden is in a poor state. The bachelor is assisted by a sister, or brother's wife, or by his mother with the dropping of seed into the

adjoining village, might receive land at a later date when that woman's daughter 423
married, according to the rule, in her mother's home village. This kind of pattern 425
is described by Hogbin (1967:24) for the Wogeo, who operate a system of land 583
dowries in conjunction with second-degree patrilateral cross-cousin marriage.

Often land is granted, on a temporary or even life-long basis, to persons other 582
than sisters or daughters. Land transfers may arise in a variety of social
relationships which cannot be easily categorised. In Inonda, where the village 423
domain is rather large, land is often lent by one lineage to another so that 425
cultivation areas can be close together or contiguous. This is done because [613]
people like to work at not too great a distance from one another. In Sivepe,
some land loans were made from a similar motive, mostly for rubber gardens.
When migrants from Garombi[2] settled in Sivepe, several grants of land were [166]
made to them, both for taro and yam gardens. Such arrangements do not usually
extend beyond the life time of the recipient although I do know of exceptions.
If the gift endures, it signifies a close and permanent bond between families who [571]
may be unrelated by kinship.

From the viewpoint I have adopted in this work, two questions are of special 121
interest in the analysis of land transfers: what social benefits are being
exchanged between the partners; and what are the symbolic motives for using
land as an object of mediation in these relationships? In order to approach these
questions, I shall first cite some situations in which land transfers are of practical
use and common occurrence:

1. Land transfers from wife's father to daughter's husband used to be very 423
common, especially in the early years of marriage. A man was expected to help 583
his wife's father with gardening and other tasks, and to stay with him for a year
or so. During this period, the father-in-law gave the couple a garden for their 425
own use. On occasion, this might be a garden to which the daughter had been
granted a permanent usehold. This type of bride-service is very much on the
decline today, as the payment of a substantial bridewealth in money acts as a
substitute. I encountered the custom once or twice and found that the
son-in-law regarded himself as the father-in-law's 'worker' or servant. We may [558]
therefore regard this type of land transfer as offering to the donor the
satisfaction of seeing the receiver reduced in social status.

2. In the other types of cases I shall mention, transfers of land do not place 423
recipients in a position of social inferiority. Certainly, in many cases harvest gifts 431
are expected from the borrowers of land but these tend to be small in size and to 736
lack any implications of status difference. For instance, many transfers are made
by widowers. These men have a choice between attaching themselves to the
family of a son, a daughter or a sister's son. In Sivepe, I found that each of these
choices was made twice in a total of six cases with which I am familiar. In all the
cases where an old man attached himself to a daughter or sister's son, he made
transfers of land to those who looked after him. The choice he makes is
prompted primarily by mutual affection but nonetheless his position is greatly
strengthened by the knowledge that he has some tangible way of showing his
gratitude, namely in the form of land. If he is unhappy with one relative and
moves to another, some part of his inheritance will probably move with him.

3. Cripples and widows are often in a similar position. They may need a

CHAPTER VI

TARO

1. *Introduction*

It has already been pointed out (Chapter II) that taro is the staple food of the 824
Orokaiva and that most of the taro produced is consumed directly by the [262]
producing household (over 90 per cent in all villages surveyed). Nonetheless, taro [431]
is the most ubiquitous of all Orokaiva objects of exchange: most households give [431]
some of it away every day and it is part of the conventional set of gifts that [437]
change hands on virtually every ceremonial occasion.

It is the purpose of this chapter to show that taro has all the characteristics of an object of mediation in the sense in which the term was used in the discussion on land. In particular, man identifies himself with taro, there is a series of myths [773]
which validate this identification, and these myths indicate the special
significance of taro gifts. A wide range of social relations are mediated through [431]
taro gifts. Their main purpose is usually the mediating of social relations rather than the setting up of a claim for a specific return gift. In this respect again taro and land gifts resemble one another.

In his discussion of 'Reciprocity and Food', Sahlins (1965: 170–4) takes very 121

824.
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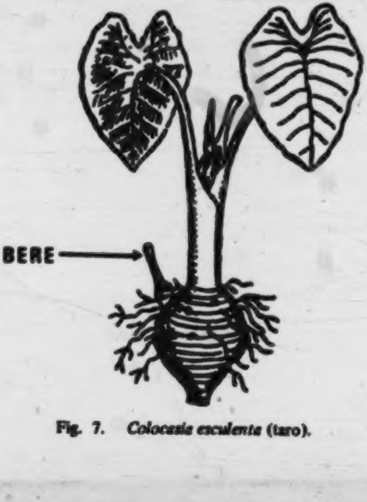


Fig. 7. *Colocasia esculenta* (taro).

121 much the same view of gifts of staple foods as I shall present here. He writes:

> The character of the goods exchanged seems to have an independent effect on the character of exchange. Staple foodstuffs cannot always be handled just like anything else. Food is life-giving, urgent, ordinarily symbolic of hearth and home, if not of mother. (*ibid.* 170)

I am wholly in agreement with this, except that I do not see why we should confine this argument to staple foods. Many other gifts objects have a similar symbolic quality and are 'socially not quite like anything else'. The essential point, however, is that Sahlins clearly recognises that the symbolic quality with which an object is invested helps to determine how it is used as a gift:

> From this several characteristic qualities of food transfers appear to follow. Food dealings are a delicate barometer, a ritual statement as it were, of social relations, and food is thus employed instrumentally as a starting, a sustaining, or a destroying mechanism of sociability. (*ibid.*)

824 The present chapter elaborates these ideas, as applied to taro gifts among the
431 Orokaiva. With the aid of some recorded myths, I shall try to show just how taro
is conceptualised, in what precise sense it is symbolic of 'hearth and home', and
571 specifically, in what sense it is symbolic of 'mother'. Secondly, I shall distinguish
121 between two specific ritual statements that can be made with the aid of taro and
show that these are indeed concerned with the starting and the sustaining of social relations. I shall show on the basis of mythological and ritual data that the two statements may be viewed as standing in a binary opposition: a masculine gift of raw taro inaugurates relations whereas a feminine gift of cooked taro maintains them.

Taro has a special position in the Orokaiva exchange system in that it symbolises commensality. Persons who exchange taro are either in fact or symbolically commensal. Thus taro exchanges are an almost infallible index of intimacy: once two persons have established a certain degree of intimacy, taro exchanges inevitably follow. The same cannot be said for any other object of mediation, not even pigmeat (which is exchanged only in certain specific circumstances) or coconut and areca (which are given, as a matter of custom, to even very casual acquaintances). I could put this more clearly perhaps by suggesting that the network of intimate associations maintained by any individual Orokaiva coincides with that individual's taro exchange network.

In the second part of the present chapter I shall refer to a somewhat detailed, statistically based, study of taro exchange networks. This study aims at answering the following questions: what role do taro exchanges play in the strengthening of existing intimate bonds based on exchange? What role do they play in widening the range of objects exchanged between partners, i.e. in making an already close social relationship even more intimate?

602 It is obvious that taro exchanges cannot make any essential change in the
relationship of members of the same corporate group. By definition, this
431 relationship is already determined by the rules of incorporation. Thus, two
824 brothers do not become more intimate by exchanging taro. On the other hand, if
the taro is a feminine object of mediation, it may strengthen the relationship between the wives of two brothers, i.e. between persons whose existing intimate

bond is based on marriage exchange. Similarly, when married siblings of opposite 602
sex reside in the same village, taro exchanged between their households would 431
tend to strengthen the relationship between a sister and her brother's wife, and
between her brother and her husband. Again among the Orokaiva where 824
corporate groups are rather small, the kinship bonds between distant agnates would carry no implication of intimacy. Intimacy could in such cases be maintained only if the kinship bond were strengthened by fairly frequent exchange transactions for which taro would be a most appropriate object of mediation. In all these instances, taro exchanges mediate an extension of intimacy beyond the narrow confines of the corporate group.

So far we have restricted our discussion of exchange to the mediation of dyadic relations between partners. But if the Orokaiva exchange system is to solve the problem of the smallness of corporate groups, dyadic relations alone would clearly be of limited utility. As evidence presented in this chapter will show, the most intimate relationships are mediated by rather frequent gifts of taro, as well as a variety of other kinds of social interaction. There is a limit to the number of such relationships that any individual can maintain. The maintenance of such intimacy between a cluster of three households would require each household to carry on very frequent exchange with two others. While this is manageable, it could not be extended to the whole of a village such as Sivepe, with twenty-two exchanging households. Nobody can maintain twenty-one intimate associations all at the same time.

This kind of problem may be attacked by the setting up of a variety of 571
corporate groupings on a basis other than kinship, and the study of such 824
groupings is one of the main subjects of political anthropology. The Orokaiva, 431
however, do not have corporate groupings of this type (no secret societies, no
age sets, no economic institutions whereby 'big men' can achieve clear 437
ascendancy over others). Instead, Orokaiva developed a principle of cohesion which I would call the circuit of mediation. The simplest way in which twenty-two households can be joined in intimate association by a circuit of mediation would be if there were intimacy between households 1 and 2, 2 and 3, 3 and 4, and so on, the chain being closed by an intimate association between households 22 and 1. Households 1 and 3 might not maintain an intimate association, but they would share intimacy with 2 and this would serve to mediate relationships between them. In theory such circuits could be unlimited in length, though the system would be rather cumbersome and expensive if extended too far.

I shall show in this chapter that the Sivepe taro exchange system presents a striking instance of such a circuit of mediation. The demonstration of this point unfortunately requires some painstaking and perhaps unduly tedious statistical analysis, which is to be presented as a separate paper elsewhere; only the basic argument is set out here.

The analysis of taro exchanges provides us with a model of the Orokaiva 121
exchange system. We may not, of course, assume *a priori* that a model applicable to taro exchanges is applicable to anything else. That needs to be established empirically. If the culture is fairly homogeneous and the empirical data are reasonably full, the model ought to be confirmable in other areas such as marriage rules and the political system. If such confirmation is forthcoming, our

121 gain will be not only ethnographic but also theoretical: we shall have learnt that the analysis of mediating elements in exchange may provide the key to social structure in an exchange-oriented culture.

2. *Taro Ancestors*

824 I shall begin the analysis of taro symbolism with one myth especially rich in
content, which includes all of the five characters, some of whom, in one way or
773 another, appear in all the myths. It also stands out by the clarity of its detail on
244 the cultivation cycle. As I proceed, I shall discuss some variant myths which
539 emphasise certain themes omitted in the main one or convey the same message in
different codes.

The myth is part of the Totoima cycle. It has been reported, very incompletely, by Williams (1930: 155, 158–9, 276) who believed that 'the eating of Totoima's body is generally made to account for nothing more than differences of dialect'. On the other hand the informant who told me the myth in Sivepe volunteered the explanation that it was the story of the origin of taro cultivation. His version, the fullest of a number collected, did not mention the name Totoima, but it occurred in different versions of the same tale given to me by others in the Sasembata district.

1. A husband slept with his wife. She became pregnant and gave birth to a male child. The husband came and asked: 'Woman, where does the boy come from?' 'I have just given birth to him.' 'Then he is mine to eat. Strike and sever him; when he is dead cut him up and cook him for me to eat,' he said.

(*Commentary*: These words are clearer if we remember that the narrator is thinking simultaneously of a woman giving birth to a child and a woman harvesting a taro. The Orokaiva believe that a growing taro has spirit life and that this spirit life is lodged in the leafy top. Therefore a taro does not die when it is harvested but the spirit life stays in it as long as the leafy top is not severed from the tuber. The act of cutting the top from the taro thus always bears a symbolic similarity to the act of killing. We shall see later that there is a crucial difference between gifts of taro with and without the tops.)

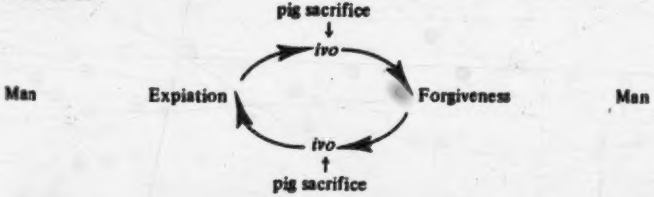
2. The woman was very sad because she had to kill and cook her child. They slept together again and this time the woman gave birth to a female child which was treated in the same manner. Male twin children followed next. But when the man came to fetch these, he could not find them. The mother had taken them to a hiding-place where she covered them with a heap of weeds (*bivese*) by the root of a tree.

(*Commentary*: The word *bivese*, used in all versions of the tale, is a gardening term used to describe a heap of weeds left in a field after clearing. It was a woman's task to keep taro plants snugly protected after planting by using these weeds as a cover. The tale thus continues to unfold on two levels: the social and horticultural level. The twins are being treated in the manner of seed taro after planting.)

3. On some pretext, the mother returned to the field, nursed the children and covered them over again. When she came home, her husband said: 'Wife, what did you do with my child that was in your belly?' 'Husband I threw my

782 sacrifice is a communion, as the obtaining of *ivo* is ultimately dependent upon an
effective identification of man with the power-conferring ancestors.
574 Models 23 and 24 may be reduced to a single one which shows the essence of
571 the whole transaction:

431 MODEL 25



571 This model, which is on a more abstract level than the previous two, states
778 that two parties standing in a relation of social opposition can establish or
restore friendly association with one another through the *mediation* of *ivo* (the
source of *ivo* being the pig sacrifices). This is the essential equation of social
exchange. *Ivo* cannot be obtained by the offerers of sacrifice acting alone, but it
is necessary and sufficient for efficacy if two parties participate, one in the role
of offerer and another in the role of recipient. The roles of 'offender' and
'offended' are ritual roles in which the actual amount of guilt or shame felt
varies widely according to circumstances. The assumption of such roles is made
[828] necessary because strife has a continuously debilitating effect on man's *ivo*. Like
many other peoples (viz. Monica Wilson 1952: 99–112; 1959: 161, 165, 217;
Burridge 1969), the Orokaiva believe that 'anger in the heart' weakens the man
who feels it. But the Orokaiva emphasise even more the obligation of the
offender to assuage that anger, however caused. Actual misfortunes are mostly
explained by anger existing in someone else's heart. The guilty person is deemed
to be he who, after being made aware of this anger, does nothing to remove it. If
the angry person uses sorcery or does some other harm it is not he but the victim
[574] of retribution who should feel guilty. The oozing away of *ivo* as a result of strife
can be reversed by the holding of pig-feasts at which the host goes through a
ritual which contains elements of both communion and expiation, but which
essentially serves the mediation of social exchange.

121 I shall now test the usefulness of this model by using it to account for some
128 empirical facts related to Orokaiva pig sacrifice. I shall discuss, because of the
relative wealth of available material, the sacrifices made at inter-village feasts at
the time of the main harvest. I shall also show how gifts made between affines
may be interpreted with the help of the model.

6. *Expiation and Communion in Feasting*

574 The decision to hold a feast might arise in two ways. First, there might be an
[628] urgent need to offer the feast to a specific outside group, e.g. to make peace, or
return a feast to which the group had been invited. Secondly, there might be a
[556]

his family are a necessary part of the process of assuaging the affinal family's 571
anger. However, such one-sided payments do not in themselves set up a social 578
relationship between affines among the Orokaiva. During this whole first phase
of the marriage, the strictest affinal taboos are maintained, prohibiting, for 602
instance, commensality between son-in-law and parents-in-law and their close [583]
kin. For social relations to begin, it is necessary for the bride's mother to rear a
pig for sacrifice to the bridegroom. Unless she does this the son-in-law feels too [606]
'ashamed' of the humiliations he has been through and of the anger shown to
him for social relations to be possible. This sacrifice, too, has therefore an [231]
element of expiation. After this sacrifice, the taboos are relaxed and the mother-in-law attends a feast at which she *pretends* to eat. Ruth Craig (1969:189), who describes a similar pattern among the Telefolmin of the New Guinea Highlands, comments cogently: 'The second transaction, the return payment, initiates the affinal relationship and emphasises its chief characteristic, friendly reciprocity . . . The relationship starts as one of equality.' It is thus clear that model 27 provides an explanation not only of inter-village feasts and consanguineal relations, but also of the establishment of affinal relationships. On the social plane pig-sacrifice establishes positive reciprocity, while on the magico-religious plane it generates *ivo* for the participants. Reciprocity and *ivo* are thus homologous notions on different levels of conceptualisation.

REFERENCES

1 Durkheim wrote that a sacrifice is composed of two essential elements: an act of communion and an act of oblation (1961: 384). He distinguished sharply between representative or commemorative rites and piacular rites, according to the prevailing mood. The former are performed in a state of confidence and joy, the latter in a state of sadness, arising out of misfortune, evil omens, sorrow or fear (*ibid.* 434–5). Evans-Pritchard (1956:275) made a somewhat similar distinction, though perhaps a less subjective one, between 'communion' (involving a desire to be close to God) and 'piaculum' (involving a desire to keep God away or get rid of him). 121

The phenomena described in this work, though aberrant from the viewpoint of the Durkeimian and Evans-Pritchard models, are fairly widespread in Melanesia. For instance, Lane, describing pig sacrifices on South Pentecost, points out (1) that sacrificer and sacrificed pig merge and share identity; (2) that the meaning of the offerings is 'clarified by reference to the way in which a special formal friendship is instituted between two men' (1965: 267). The Mae Enga sacrifice pigs to a ghost when that ghost is suspected of causing misfortunes. But half or more of the meat, sometimes all of it, goes to maternal kinsmen as the ghost is always considered to belong to the uterine line (Meggitt 1965*b*: 112–3). Elements of communion and piaculum are both present, but also a need to influence critical social relationships.

2 For a detailed discussion of myths related to the differentiation of species, see Lévi-Strauss 1964. 000

3 For details on the effect of the Mount Lamington eruption on the Sangara tribe and the founding and development of Hohorita, see Schwimmer 1969.

4 A fuller discussion on Orokaiva leadership will be found in Reay 1953, Schwimmer 1967.

CHAPTER VIII

COCONUT AND BETELNUT

1. *Theoretical Intermezzo*

We have discussed throughout this work the belief that crises in social relations 571
are resolved by magic. In the last chapter we showed explicitly that this is the
view expressed in the Orokaiva folk model of exchange (model 25). There are 578
two implications in this folk model: that magical power (*ivo*) is required to 778
establish social relations and that social relations have the effect of generating
ivo for those who establish them. The objection that may be advanced against 121
this approach is its subjectivity. One may call it a phenomenological approach, as it is based on *ego*'s experience of *alter*'s world as transcendant (see Schutz 1967: 312–29). One may also call it the approach of Marcel Mauss (1966), who explained exchange by a magical construction he called *hau*. It may be argued that it has some resemblance with Sartre's philosophy (1960), where the opposition between *ego* and *alter* is transcended by a 'dialectical process' or 'praxis'. Here again no interdependence of *ego* and *alter* is deemed to exist prior to a course of action inaugurated by *ego* and serving to transcend the opposition.

Against all these theories, Lévi-Strauss has argued that exchange is logically prior to giving, receiving and giving in return. In his theory, unconscious mental structures not only determine that man should order his universe by means of systems of binary oppositions, but also that these oppositions should be transcended by syntheses. Exchange, and any form of communication, is a synthesis where things are perceived simultaneously from the viewpoint of self and other and destined by nature to pass from the one to the other. The situation that they *belong to* the one or the other arises out of initial relational characteristics (Lévi-Strauss 1966: xlvi).

The evidence quoted for these unconscious mental structures is mainly 431
linguistic: the Papuans and Melanesians have only one word for sale and 437
purchase, lending and borrowing, which shows that contradictions between these
terms must be illusory. If we survey the Orokaiva data reported in previous [192]
chapters, we notice that in general objects of mediation are similarly 'destined by nature' to pass from one partner to another. Meat, for instance, is magically effective only or predominantly if it is received as a gift. One may say that pigs are a family's gift-children: they are part of the family but it is their destiny to be given away. From birth, they may be said to 'belong' to some exchange partner. In fact, in my whole discussion on mediation, I stressed that the donor must be identified with the object of mediation and that, for the exchange relation to be effective, the recipient should also identify with it. I pointed out

A [See Cat. 571, p. 148--Analyst]

431 437 that such identification could be achieved only if there is a starting mechanism, in the form of a mythical charter, which defines the object as having the magical qualities that will enable it to act as mediator.

121 It must be admitted, however, that this mythical charter is logically prior to the social relation *only in the view of the indigenous culture* and that its logical status is no higher than *hau, mana, ivo* or any other mystical concept of the type Lévi-Strauss rejects as 'verbose phenomenology'. How can we meet this criticism? If we are to follow Lévi-Strauss' prescription, we have to turn to the largely unconscious categories of Orokaiva 'symbolic thought', i.e. the basic binary oppositions discovered in the culture by structural analysis. We have already, from the preceding chapters, some idea what the basic Orokaiva oppositions would be. We have noticed, especially, the importance of the male and female principle: most other binary oppositions we have found are related to this. The bush is classified as belonging to the male, the garden to the female; the wild pig to the male, taro to the female. Gifts of raw food are male, of cooked food female. Killing is the province of the male, nurture of the female.

Now such oppositions belong to 'symbolic thought', as Lévi-Strauss uses the term, precisely because of the kind of evidence I have brought forward in preceding chapters: it is the symbolic exchange relations holding between male and female, bush and garden, pig and taro, etc., that give them the status of binary oppositions in the structural analysis of Orokaiva culture. The difference between Lévi-Strauss' approach and my own does not lie so much in his and my use of binary oppositions as in my use of an exchange model in which the magical aspect of mediation is emphasised. For instance, my model 22 contains two binary oppositions: Man as Hunter/Pig as Marauder; and *Sovai*/Domesticated Pig. Both of these could, I think, be accommodated as part of a 'structural analysis' of Orokaiva culture. When I connect these two binary oppositions with arrows showing an exchange transaction distinguishing partners and objects of exchange and elements of mediation, I am introducing a 'subjectivist' element which is alien to structural analysis. I am showing a concern for the study of transactions, dialectical process, praxis, or perhaps Mauss' concept of *hau*. From a structuralist viewpoint, my arrows are entirely unnecessary as the exchange process is a prior condition of binary oppositions and has no place on the level of the model except as a logical operator (usually the symbol: /).

Now one problem with structural analysis is always at what point one should stop. Certainly analysis may reveal a great deal about the workings of symbolism in culture as it reduces social relations to exchange, exchange to symbolic thought and finally, in Lévi-Strauss' *Mythologiques* (1964, 1966, 1968) symbolic thought to computer signals. As Simonis (1968: 311) has wisely pointed out, at the final stage we move from a science of man to the logic of aesthetic perception. I think we should stop at the point most expedient for our own investigation. It is not useful in a study of Orokaiva exchange to carry on the analysis until exchange is reduced to the status of a logical operator. On the other hand, if in the manner of the phenomenologists we 'bracket' the logical priority of exchange, we find ourselves in difficulties when the folk system itself contains the type of dialectical reasoning upon which Lévi-Strauss founds his own theory. This is the problem with which we shall be concerned in the present chapter.

We shall need to consider exchange from two points of view: first, as in the 121
preceding chapters, we may consider it phenomenologically, from the viewpoint of the transactional polarity of the exchange partners; secondly, we may consider it from the viewpoint of symbolic thought, as something like the dialogue between *Yin* and *Yang*, as the product of Orokaiva intelligence reflecting upon affective experience.[1] It is this second approach which will be appropriate for much of our discussion about the remarkable Orokaiva myth of the coconut and the betelnut.

2. *The Minor Foods: Objects of Mediation and Paired Symbols*

Although this chapter will deal mainly with the coconut and betelnut, it will be 824
useful first to set this couple into a wider ecological and cultural context. 772
Coconut and betelnut have been chosen for detailed treatment out of a large number of minor foods of the Orokaiva, many of which have their special importance as objects of mediation. An interesting aspect of these minor foods is that Orokaiva symbolic thought arranges them in couples to which a male/female
opposition is usually ascribed. Very often these plant couples are grown in close [245]
association with one another and it is claimed that they will not prosper unless
they are planted together and that, in their wild state, they are also found [249]
together. The symbolic association of these pairs of plants may be based on any of a number of shared characteristics: the similar outward appearance of the fruit, a coincidence in the time of fruiting, a similarity in culinary use, in taste, in supposed physiological effects of the fruit when eaten. Sometimes the pair of plants are linked in ritual use and in a common myth.

Among examples of this pairing tendency that may be quoted are two varieties of breadfruit, called *oga* and *eumba*; two condiments important in initiation ritual: the *puga* nut and the salt vine *hoe*; the yam and a red fruit called *hamesi*. The coconut (*vu*) and betelnut or *areca* (*sa*) are similarly a pair of subsidiary foods between which there are important points of resemblance which led to their being paired together, and important points of difference which led one of them to be classified as male and the other as female.

Coconut and betelnut are planted together in villages and also in gardens. [245]
Both nuts are eaten raw, young coconuts for refreshment, *areca* for relaxation, [249]
and both are consumed between meals. Both nuts grow on palms. Both foods
have notable (though different) biochemical effects on those who eat them. [262]
Both foods are standard gifts made to strangers who visit a village, a coconut [276]
being offered as refreshment immediately upon arrival while betelnut is chewed [431]
(along with *hingi* pepper and lime) during the conversation. The two nuts are
also associated in ritual use. At mortuary feasts, the most important gift objects [764]
are large quantities of betelnuts and coconuts harvested from the palms of the deceased, while dry coconut and betelnut are strewn on graves by affines of the
deceased. Finally, coconut and betelnut are associated in an important myth [773]
which I intend to discuss in detail.

In studying plant couples such as coconut and betelnut two aspects of [437]
exchange need to be considered: first, exchanges between persons in which the food products appear as objects of mediation and secondly, mythical exchanges between the male and female plant, where the two plants appear as exchange

because of the dangers he fears from contact with the female. By offering 824
betelnut, woman overcomes this reluctance in man and draws him into the 276
sexual exchange she desires.

5. *The Myth of Coconut and Betelnut*

Though we have now summarised the exchange cycles mediated by coconut and 121 betelnut, we have not shown why these objects of mediation are considered to be efficacious in exchange. In past chapters we have explained efficacity in terms of indigenous philosophy. Indigenous logic generally relies on a myth in which a specific precept is either explicitly stated or implied. By giving this precept the status of an axiom, we can show by logical deduction that a thing (land, taro, pig, etc.) can have potency as an object of mediation in certain transactions.[2]

This kind of explanation of mediation draws on mythical sources much in the same way as Malinowski. Malinowski held that the 'function' of a myth is the charter it provides for customary rules. I can see no objection to this approach as long as we can be sure, from independent evidence, that charter and custom really coincide, which is not always the case, and as long as we check carefully how informants perform the logical deduction. If charter and custom do not coincide, we need to go beyond Malinowski's techniques of myth analysis and seek out the message by decoding the symbolic language of the myth. The betelnut myth already quoted provides an instance of discrepancy between myth
and custom.[3] According to the myth it is the man who gives betelnut to the [824]
woman, whereas we know that in girls' initiation ritual and in courting custom, [431]
i.e. in the most structured betelnut presentations, the *woman* plays the role of
donor and the plant is classified as feminine. [773]

Such a discrepancy might easily be dismissed as too trivial for investigation but for the fact that it seems to be related to the disagreement between Mauss and Lévi-Strauss to which I referred earlier in this chapter. Mauss' theory of the gift would not easily explain this type of reversal, which would serve as a useful corroboration of Lévi-Strauss' contention that the 'contradiction' in the donor-recipient relationship may be illusory. I am not suggesting that his theory can be proved by empirical evidence, but only that it can be corroborated if we find evidence that Orokaiva informants do not treat exchange as purely magical, but recognise its synthetic character in their reasoning about myth, ritual and rules of behaviour.

The beginning of the myth to be discussed here is well-known; I was told it 773
several times and Williams also recorded it (1928: 122). Here follows a summary 824
of a version I collected on tape in the Orokaiva language: A beautiful girl, noted 539
for her remarkable breasts, has the misfortune to kill all the young men with
whom she sleeps. Her breasts prick and kill them. She warns them to sleep [126]
against her back but they never follow this advice. The girl's brother becomes concerned and tells her that he personally will choose her next sleeping partner. He chooses his own *dambo*, i.e. his wife's brother. He tells his *dambo*:

> Because mistakes were made other bachelors have died, but, my *dambo*, my true *dambo*, she is going to sleep; she is going up to bed. Therefore see that all is properly prepared and the bed is properly made for sleeping.

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of the father-son relationship is suppressed by consciousness, among the Orokaiva as among ourselves, and is revealed only in dreams, myths and other messages from the unconscious. In contrast, synchronic exchange – as the love between spouses, the amity between affines – is overtly recognised and empirically verifiable on the social level. It is, however, purely imaginary on the ecological level, as plant associations, such as that of coconut and betelnut, *oga* and *eumba*, *puga* and *hoe*, yam and *hamesi*, are not necessarily found in nature but are generally brought about by man for magico-religious reasons. When man establishes these plant associations he is recreating on the ecological level the symbolic equivalents of the social relations on which his prosperity depends.

These social relations are, as we have seen, of two types. In sexual love we find the mystical and irrevocable unity of opposites where objects of mediation become, in the last analysis, irrelevant. But in other social exchanges we find a necessity for objects of mediation establishing a link between self and other. This relationship is exemplified in its purest form in model 29, the model of sister exchange, where a relationship between *dambo* is mediated by an exchange of sisters. But in models 28 and 30 we find important variants, where betelnut and coconut are substituted to mediate the exchange. Precisely because neither of these two products is of any great economic value, they are appropriate for serving as tokens of exchange, a signal of the potential existence of exchange, between any partners, though in the myth and in mortuary ritual this exchange takes place between the prototype-partners of the Orokaiva, the *dambo*. The rather bold suggestion I made at the end of the previous section therefore corresponds to a hidden reality, namely that gifts of coconut and betelnut are symbolic of sexual exchange. It is significant, in this regard, that sisters-in-law address each other by the term *bi*, which means penis.

REFERENCES

1 I am referring here to Radcliffe-Brown's discussion on Yin and Yang as an example of complementary opposition (1951) and to Lévi-Strauss' adoption of this example to present his theory concerning the real nature of totemism (Lévi-Strauss 1962T). Coconut and betelnut, in the myth discussed in the present chapter, may be seen as a further example of the same principle. 121

2 This type of logic, first developed by Gentzen in 1934, was adopted afterwards by Popper and has been shown to be the basis of primitive systems of thought (Jarvie 1964). It requires no investigation into the truth value of axioms. Gentzen called it 'natural deduction'.

3 Though Malinowski held (1926M) that 'myth serves principally to establish a sociological charter, or a retrospective moral pattern of behaviour, or the primeval supreme miracle of magic', he knew very well that the charter is occasionally 'flagrantly violated' by the actual norms of a society. He also recognised that where we find a fully institutionalised violation of a mythical charter, we should seek an explanation for the discrepancy. Malinowski even took initial steps towards such explanation: 'This violation always takes place when the local claims of an autochthonous clan . . . are overriden by an immigrant clan. Then a conflict of principles is created . . . ' (1926M; reprinted 1954: 117)

121 A very similar point was made by Lévi-Strauss in 'Legeste d'Asdiwal'. After pointing out that the institutions described in myths can be the very opposite of real institutions, he argues that any such discrepancy 'implies an admission that the social facts are marred by an insurmountable contradiction'. By investigating such contradictions, we may find means of 'reaching unconscious categories' (1961: 1110–1). This is precisely the strategy I have adopted in the present chapter.

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4 I have followed a method demonstrated by Lévi-Strauss in *Le cru et le cuit* (1964). I have shown that the two myths discussed in this section are isomorphous; I have isolated their distinctive features and posited that they are interrelated. I found that in each myth three levels (botanical, social, physiological) were superimposed and that each level transmitted the same message. Between the two myths, there was an inversion of the codes and the message (1964: 205, 250–2).

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER IX

ORNAMENTS

1. *Introduction*

Exchanges mediated by ornaments may be studied in very much the same 121
way as those mediated by coconut and betelnut. This means that (1) ornaments may serve as symbols of identity; (2) this symbolic quality attached to ornaments makes them suitable to serve as objects of mediation.

A symbol of identity, in the sense intended here, is an object which, if shown 524
or given to another person, reveals the identity of its owner. A plant emblem is, in this sense, a symbol of identity, as anyone who sees it lying on the path knows the identity of the person who put it there. More specifically, the finder of the plant emblem knows that the person who dropped it is a member of a specific group which has the right to use this emblem and which is identified
with it. Identity, in this instance,[1] is not defined as attached to an individual but [571]
rather as attached to a class, and the individual who uses the plant emblem is stating his membership of that class. Furthermore, identity in this sense must always have been *received from* someone. Membership in a plant emblem group is conferred by a father or mother. It is not a gift but an automatic result of filiation. As such it is symbolic of the system of rules governing co-operation within the corporate group.

An ornament may be ceremonially conferred upon a person who will 301
henceforth regard it, in the same sense, as a symbol of identity. The ornament is 431
then called an *otohu*, a term to be defined later. It is worn by its owner and
those who see it recognise it as a symbol of its owner's moral integrity. It 571
indicates that the owner has pledged to act in accordance with a historically established behaviour model. Therefore, in this instance again, identity is not defined as attached to an individual but rather as attached to a class of persons who follow this behaviour model. Furthermore, again, identity in this sense must always have been received from someone. It is not conferred necessarily by the wearer's father, but may come from any other male consanguine (or even affine) of the ascending generation. It is not conferred automatically; there is no rule saying that it should be conferred and it is not conferred upon everyone. The *otohu* is, in fact, always a gift. As such it is symbolic of a pledge made by the wearer that he regards himself as bound by the system of rules governing exchange between other corporate groups and his own.

Although it is usual for persons to own more than one ornament, I have not heard of any owning more than one *otohu*. The *otohu* is distinguished from other ornaments (*hambo*) by the addition of some special feature which constitutes its mark of identity. *Otohu* are not given away except in special

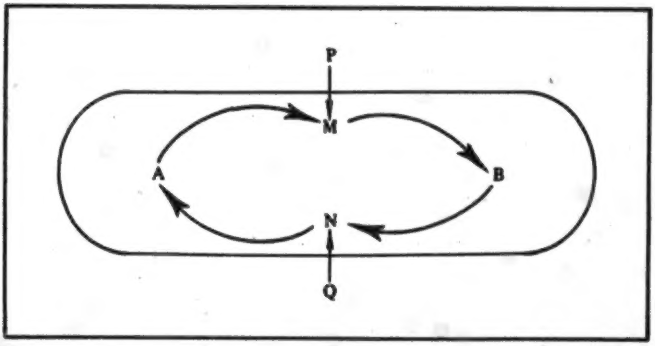
301 an economic standpoint, it is important that they represent storable wealth –
431 the only storable wealth of the Orokaiva. Nearly every family today keeps
425 *hambo* and feathers in a locked suitcase, thus elevating the suitcase into one of
556 the most ubiquitous introduced elements of Orokaiva material culture.

The distinctive characteristic of the *hambo*, as compared with other objects of mediation considered here, lies in the type of social exchange that is mediated by means of *hambo* gifts. One might say that the partners are exchanging spirit participation. No doubt cultures vary in the extent to which individuals lend and give each other their private religious paraphernalia, i.e. the objects they use to achieve communion with their deities. In a society as exchange-oriented as the Orokaiva, where virtually everything is exchanged, there is clearly some special satisfaction in wearing someone else's *hambo*. Furthermore, a 'total presentation' such as bridewealth, which is intended to create a social relationship on a great many levels, must always include the sacral level represented by *hambo*.

7. *The Nature of Mediation*

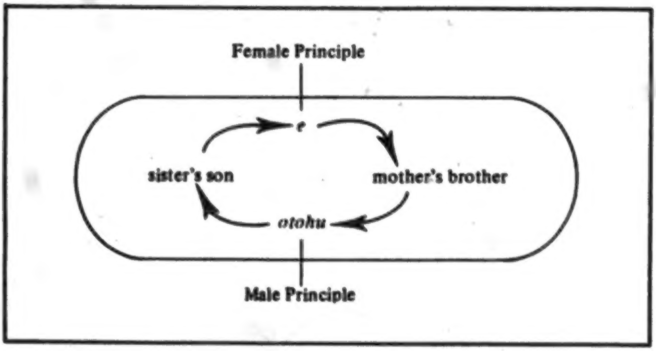
431 In the last five chapters exchange has been discussed largely on the assumption
that it occurs on two levels. First, it occurs on the mythico-religious level where
121 exchange relations are stated in the form of binary oppositions or possibly also
some other more complex structures. Among the examples discussed have been coconut/betelnut and the pair of initiatory flutes. Secondly, exchange occurs on the social level where each exchange partner subjectively views the other as transcendent and reachable only with the aid of some form of mediation. The belief in the magical efficacy of any given object of exchange is validated by notions deriving from the mythico-religious level. If A and B stand for exchange partners/objects of exchange, M and N for objects of mediation, and P and Q for relevant binary oppositions present on the mythico-religious level, we may represent our model of exchange as follows:

MODEL 33



As an example of the operation of this model, we may summarise the 431
discussion concerning the sacred flutes and the *otohu*. On the mythical level 121
there is a binary opposition between a male and a female principle. On the social level there is a relation between mother's brother and sister's son, which is mediated (*a*) by the mother; (*b*) by the gift of an *otohu*. On the technological level, there is opposition between a male and female initiation flute (respectively *otohu* and e = mother). These complex interrelations are shown with great economy in the following diagram:

MODEL 34



The objects of mediation under discussion in the preceding chapters have been mostly material objects, but the model is by no means confined to these. It is equally applicable to social objects of mediation. Indeed, in model 34, the word *e* appears in a double sense: as one of the two initiatory flutes, i.e. a material object, but simultaneously as 'mother', a social object. In the taro sociogram, we introduced a series of human mediators between a set of distant but equal exchange partners (model 20).[A] In discussing the *aguma*, we found the same pattern between a set of distant but unequal exchange partners (model 31).[B] Similarly, we may regard the mother's brother as mediator between initiand and the spirit world.

Some of the most important social exchanges are those which are mediated 431
by a woman who is a sister of one of the partners and the wife of the other. We 562
have already looked briefly at this type of exchange when discussing the coconut
and betelnut myth (model 29).[C] In thus equating woman with an 'object of 121
mediation' we are not thereby postulating any essential inequality between men and women except in as far as the Orokaiva happen to be patrilocal and patrilineal, so that it is the women, not the men, whose sexual role places them
in a position of mediation. We are merely suggesting that two persons standing in [582]
a relation of *dambo* mediate their social relationship through a woman with which each, in a different way, is identified, one sexually and the other non-sexually. The asymmetry is balanced out by a counter-prestation on the part

A [See p. 182, Cat. 881--Analyst]
B [See p. 135, Cat. 431--Analyst]
C [See p. 171, Cat. 824--Analyst]

431 of the 'husband' who either gives a woman in exchange (direct marriage
121 exchange) or else makes some kind of reparation for having deprived his
562 exchange partner (generalised marriage exchange).
582

REFERENCES

824 1. Erikson, describing 'the beginnings of identity' in the adolescent, comes rather close to what I have in mind in this chapter: 'The emerging identity
571 bridges the stages of childhood when the bodily self and the parental images are given their cultural connotation: and it bridges the stage of young adulthood, when a variety of social roles become available and, in fact, increasingly coercive.' (1963: 235).

881 2. A person who receives a token is referred to in this chapter as an 'initiate', as Williams makes it very clear the the bestowal of the token is not a necessary part of initiation, and comes after the ceremony which makes an 'inistion' into an 'initiate'.

000 3. I am using Beaver's spelling, as Beaver (1920) is the source for Williams' and my own information about *kortopo*, but Williams spells the word *kotopo*.

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

CHAPTER X

MARRIAGE

1. *Introduction*

In analysing a system of exchange, our first task is to find the rules governing the objects of mediation. I have not dealt with all objects used by Orokaiva for the mediation of social exchange, but I have given enough examples to show both a method and a pattern. The effect of the rules is to place constraints upon the exchange partners. Examples of such constraints may be found in each of the five preceding chapters. In making land transfers a man is constrained, in the main, by the love for his sister who wants his land for her children. In the daily ritual of taro gifts, householders are constrained by their quasi-commensal neighbours. Gifts of pig meat are constrained even more severely by a taboo on eating pork reared by oneself or a close relative. The constraint in coconut and betelnut gifts is mainly felt after a death, with affines as preferential recipients. The *otohu* sets up constraints through the moral pledges made at the time of its transfer to the owner. 121 437 431

Each of these constraints compels the individual to make commitments outside the narrow confines of the small agnatic group. Land transfers to the sister, if hereditary, place the sister's son in a position of dual allegiance to the agnatic and uterine group. The taro gift network involves a majority of non-agnates and establishes a chain of non-agnates who become vicariously quasi-commensal. The obligation to keep pigs for mediating critical social relationships ensures that means are available for setting in motion new cycles of positive reciprocity, either with strangers or with former enemies. My analysis of the coconut-betelnut myth shows a commitment on the philosophical plane: it shows that Orokaiva do not view exchange merely as a social and economic expediency, but as expressing, in symbolic thought, the interdependence of the sexes. Finally, the existence of two basic identity symbols (*hae* and *otohu*) implies a profound psychological commitment to the exchange system commensurate in Orokaiva society with the commitment to the corporate group.

I have spoken, in each case, of constraints because there has been a tendency, in the study of New Guinea societies, to overemphasise the degree of freedom. A man does not give his land, his taro, his pigs, or his *otohu* to just anyone. There are very strong pulls in the direction of the corporate group and these are balanced by very strong pulls in the direction of the exchange system. Nor is it correct to assume that the former are determined by structural rules whereas the latter are determined by economic interest. A study of the objects of mediation has already shown that there are rules which make commitment to the exchange system either obligatory or preferential. Yet all the evidence brought forward so

431 437 far has presented this exchange system as a set of individual, though interconnected, networks.

121 If our analysis cannot go beyond the identification and description of these networks, we shall clearly have failed to establish exchange as an explanatory principle for the ethnography of the Orokaiva. The success of our enterprise therefore depends on the discovery of some constraints, existing within the exchange system, which are placed upon individuals in virtue of their membership of some corporate group. If such rules exist at all, one may assume that they are most likely to be found in the marriage system.

583 121 Here we enter somewhat controversial ground. In the introduction to a symposium on marriage in the New Guinea Highlands, Meggitt has recently (1969) asserted that, in that area at least, positive marriage rules do not exist but only what he calls 'contingent preferential arrangements'. If his arguments are accepted, there would be no positive marriage rules among the Orokaiva nor, as far as I can see, anywhere else in the world. His arguments hinge on his use of the terms 'preferential' and 'prescriptive', but even if we revert to the definitions given for these terms by Lévi-Strauss (1967: xvii–xxiii) a very careful and detailed investigation is required in order to determine whether or not the Orokaiva have any preferential rules of marriage and exogamy.

It may be best to start with Lévi-Strauss' own discussions regarding the problems of Melanesian marriage rules. When he wrote *Les structures élémentaires de la parenté* (1949), the ethnographic data from which a general model for the Melanesian area could have been securely constructed were lacking. Nonetheless Lévi-Strauss wrote a brief passage on this subject and ventured a bold hypothesis. The hypothesis seemed especially bold because at that time there was only one ethnography that could be quoted to support it, a description by F. E. Williams of the apparently aberrant kinship system of the Koriari (1932). I think nonetheless that his hypothesis is a most useful starting point for the analysis of Melanesian systems:

> *La Nouvelle-Guinée, et les régions avoisinantes, présentent, à un degré exceptionnel, un phénomène que Williams a decrit sous le nom d' "affiliation sexuelle", c'est-à-dire une différentiation de statut entre le frère et la sœur, l'un suivant la ligne paternelle et l'autre la ligne maternelle. Il est impossible d'interpréter ce phénomène en fonction de l'échange restreint: mais il devient très clair quand on l'envisage sous l'échange généralisé, puisqu'en mariage matrilatéral comme en mariage patrilatéral, le frère et la sœur suivent des destins différents. L'étude des phénomènes d'affiliation sexuelle . . . permet donc de définir, à travers tout le monde mélanésien, une sorte de faille de l'échange généralisé . . . Toute l'aire orientale, "océano-américaine", comme on peut le nommer, forme donc une sorte de théâtre, où se rencontrent échange restreint et échange généralisé, tantôt pour s'opposer, et tantôt pour se combiner* (1949: reprinted 1967: 534–5).

Since 1949, Lévi-Strauss has made several further contributions to the analysis of Melanesian societies. In the second edition of *Les structures élèmentaires de la parenté* he suggested that *la ligne de partage entre les sociétés traditionellement appelées "primitives" et les sociétés dites "civilisées" ne coincide pas avec celle entre "structures élèmentaires" et "structures com-*

plexes" (1967: 123). In particular, he stated the opinion that many Melanesian 583
structures *'ne relèvent pas des structures élémentaires' (ibid.*: 122). We learn the 121
precise meaning of this statement in another essay, *The Future of Kinship Studies*, published in the English language in 1966. Whereas elementary structures operate ideally within a fixed number of marriage classes, the rules of complex structures are so framed that the system requires a perpetual supply of new affinal groups for its continued operation. They produce a probabilistic alliance network. Rules of this kind are found in the Crow and Omaha systems, but also in many other culture areas, including Melanesia (1966: 21).

Since these hypotheses were published, a number of anthropologists have begun to test them empirically. To mention only two examples, Guiart (1968) has shown the presence of restricted exchange rules in New Caledonia and Kelly (1968) has shown the presence of generalised exchange on Dobu. It seems, however, that a crucial implication of the Lévi-Straussian hypotheses remains to be explored. It is suggested that restricted and generalised exchange (or perhaps restricted and complex exchange) *encounter* one another in the Melanesian culture area. This would imply the possibility of the simultaneous existence in the same society of both forms and some interaction between the two. If such a society could be found, the hypothesis implies that generalised exchange attempts to establish itself there, but *fails* to find a firm foothold, while features of restricted exchange tend to reassert themselves constantly as a result of this *failure*.

The interest of the Orokaiva case lies in the coexistence of the two systems, on the level both of norms and facts. In Orokaiva social structure we may see the two systems in interaction and discover by which factors each of the systems is maintained in opposition to the other. We thus arrive at a model on a higher level of abstraction than those of Guiart and Kelly, but comprising them both. In this model moiety systems are perpetually broken up by forces built into the structure itself: yet the model also predicts their perpetual reinstatement. The model consists, in fact, of a cyclical movement between the two patterns. The reality of Melanesian structure is not exhausted by either of the two patterns taken in isolation, but includes their necessary alternation over time and in space. The dynamic whereby this alternation is produced is the main subject of this chapter.

2. *Patrilineal Groups*

The Orokaiva are patrilocal and have dispersed patriclans. They make many 614
statements which demonstrate their patrilineal ideology: agnates are expected to 611
support each other in war and all other vicissitudes of life, irrespective of their [591]
place of residence. The basic inheritance rule is patrilineal. Clans and clan [428]
segments have distinctive emblems which are passed on in the patriline and identified with a common agnatic ancestor. One may even hear claims that the dispersed clan is an exogamous unit. All analytically-minded investigators, however, have been aware that this agnatic ideology covered up a very different reality. Williams remarked: 'The Orokaiva organisation very nearly approaches a bilateral system, though in theory it is patrilineal' (1925: 407). Williams was especially struck by the 'laxity' of the marriage regulations and by cases where

Rimoldi. I witnessed marriage and mortuary payments where an entire *hae* 614
(including non-consanguines) were present, but where clansmen of different *hae* 924
had no business to be present.

Orokaiva genealogies hardly ever extended further than two generations beyond the oldest living member of a family. Thus, I was able to draw up a sizeable list of people who lived in Sivepe and other villages around 1915, but could get no genealogical information showing how these people were related to one another. However, informants were able to tell me the *hae* of these ancestors, and these *hae* proved to be the only evidence for statements that A and B 'must have been closely related' or 'cannot have been closely related'. In contrast to the clan and clan segment (which I shall later show to be military and political units – whole or fragmentary), the plant emblem group alone has the nature of a true kinship group. Therefore we should not be surprised that the *hae* occurs prominently in the Orokaiva marriage rules with regard to incest and exogamy.

3. *Williams' Theory of Orokaiva Marriage*

Being a most careful ethnographer, Williams frankly admitted he was unable to 582
understand the Orokaiva rules of exogamy. He quotes three conflicting sets of rules, given to him by informants, and was unable to discern any clear system. According to some informants the clan was the exogamous group. According to others, marriage within the clan was sometimes permissible, but marriage was prohibited between persons sharing a plant emblem. A third rule quoted to Williams was that marriage was prohibited between *du* (i.e. real and classificatory
siblings) but permitted and common between cross-cousins. One task of the [121]
present essay is to resolve these contradictions.

Williams, furthermore, confessed himself unable to find any positive marriage 582
regulations, i.e. 'any prescribed classes into which a man is obliged to marry' 583
(1930:132). Here he was being too modest: in a subsequent discussion of 'the four forms of marriage' of the Orokaiva, he actually provided the key to the system, though he was unable to carry its analysis as far as he managed to do in some of his later ethnographies, such as those of the Koiari and the *Papuans of the Trans-Fly*.

The 'four forms' were: purchase, exchange, elopement, and capture. Marriage 583
by capture used to be very frequent and a regular aftermath of cannibal raids. 602
Williams reports that, under this form of marriage, relations between affines 578
often remained hostile – which is not surprising. In many cases the hostile groups later established peace or at least a truce. One feature of such a truce used to be the payment of bridewealth for captured women. The truce was often negotiated at least partly through the influence of the captive. Though Williams has little information on the compensation paid one gathers that the usual pattern of Orokaiva bridewealth payments was followed: pigs, valuables, bark-cloth, pots, taro, etc. My own data confirm that it was not uncommon for ordinary affinal relations to be established once the captors had paid bridewealth. Children of the marriage would then set up the customary relationship with their mother's brother and even receive permanent rights in hunting lands and the like.

Elopement marriage likewise used to be very frequent. Williams reports that it

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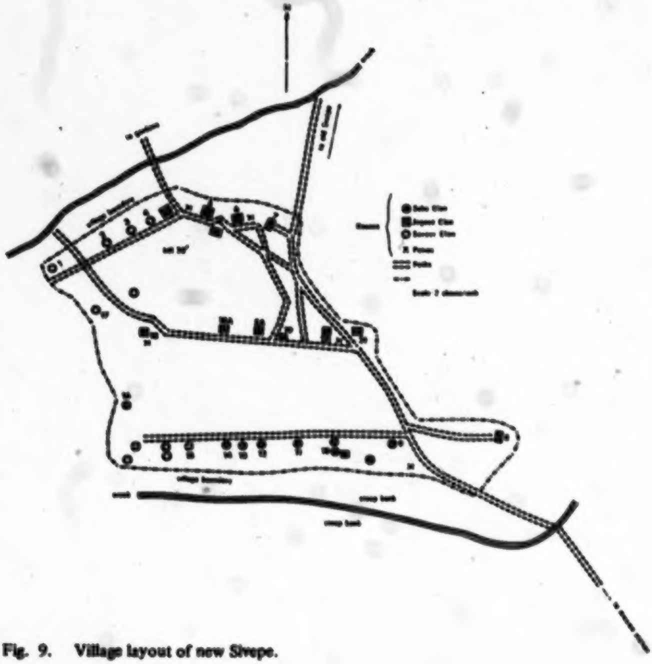

Fig. 9. Village layout of new Sivepe.

361 rather irregular pattern. Village plans of Sivepe drawn by Rimoldi and Waddell in
616 1963 and 1964 show no formal separation between the clans. Some neighbour-
614 ing villages, such as Garombi, however, did allocate one side to each of their two
621 clans. The fact that Sivepe introduced this pattern in 1965 has no particular explanation except that it appealed to the Seho clan leader who supplied the land for the village site. One might describe his innovation as an idiosyncrasy or a fashion but at the same time it is significant that the pattern of residence he introduced resembles that familiar to anthropologists in the many parts of the world where exogamous moieties are found.

583 I have now shown most of the evidence for direct marriage exchange and
616 forms of dual organisation. The question that remains to be answered is why this
121 system was so fitfully practised. Are the discrepant cases to be explained merely by organisational factors such as lack of choice, the vicissitudes of war, the need for alliances? Or are there present in the culture a further set of rules related to marriage which we have not yet considered and which are irreconcilable with the principle of direct marriage exchange?

It is obvious, first of all, that the Orokaiva rules concerning bilateral 583
cross-cousin marriage and reciprocating pairs of groups are not free from
ambiguity. The term *simbo* is not synonymous with the term 'cross-cousin'. Not 616
all societies which have reciprocating pairs of groups have direct marriage 121
exchange, as Lévi-Strauss showed in respect of the Koiari. The fact that the Sivepe people were partners in no less than twenty-five reciprocating pairs of groups in two generations poses the question whether this apparent instability corresponds to a structural regularity such as the 'sex affiliation' of the Koiari. Furthermore, in view of Lévi-Strauss' analysis of the African *lobola*, we need to investigate whether the Orokaiva institution of bridewealth (*dorobu*) is consistent with the principle of direct marriage exchange. Such inquiries would not serve to deny the reality of this principle in Orokaiva culture but rather to raise the possibility of the combined presence of direct and generalised exchange.

6. *Kinship Terminology*

Though Williams' description of Orokaiva kinship terminology is generally very 601
accurate, it is deficient in two respects: his definition of the term *simbo* (quoted in section 4 above) is inconsistent with Orokaiva usage and he gives no terms for female speakers. Yet it is in these two areas that we find the key to Orokaiva marriage. We have seen that a *simbo* is – always and exclusively – a marriageable consanguine. If Williams were right in saying that a *simbo* is also – always and exclusively – a cross-cousin, then a rule of bilateral *simbo* marriage would be unambiguously equivalent to a rule of bilateral cross-cousin marriage. If the term *simbo* could be positively defined as a bilateral category of cross-cousins (as the Aranda do), then again we would have a rule of bilateral cross-cousin marriage. In the absence of a positive rule, however, the Orokaiva kinship system could not be regarded as 'elementary' in Lévi-Strauss' sense of the term, and thus it would not contain a true rule of bilateral cross-cousin marriage.

Again where such a rule prevails consistently, there would seem to be no need of special affinal terms. Williams, entirely correctly, gives a set of distinct affinal terms for male speakers which would suggest that the whole system is based on generalised rather than restricted exchange. Williams' explanation of this apparent discrepancy appears to be an evolutionary one: *dorobu* came first (and established the terminology) while *mine* developed later. As we shall see, the reality is more complex, as the Orokaiva use two types of affinal terminology: one type which is consistent with generalised exchange and another which is consistent with direct exchange. The former of these two types of terminology is in regular use by men and the latter by women. This fact is consistent with the theory that the Orokaiva marriage system is a combination of generalised and restricted exchange.

For the purpose of a componential analysis of terms we shall consider only terms used in face-to-face interaction by *ego* to address an *alter* when no other relative is present. The following dimensions of contrast apply:

Consanguine(C): *Ego* traces relationship to *alter* through a chain of linkages based on filiation, or a shared clan name, or common birth in a distant village.

[TEXT CONTINUED ON PAGE 205]

reciprocating pairs of groups in a state of pseudo-commensality. They share not 583 only the land but also its products. The symbolic significance of taro, as set out 614 in that chapter, accords with this theory. Symbolically, taro are children of the marriage of the donors; they are constantly being given away both inside and outside the *simbo* relationship.

On the other hand, the pig belongs essentially to the sphere of *dorobu* marriage, not only because pigs are always sacrificed on such occasions, but because they are the institutionalised means whereby a negative cycle of reciprocity can be made positive.

Again, the coconut-betelnut myth has not merely to do with marriage as the union of two partners or even families, but is a charter for the offering of these nuts on the graves of affines by a large group of survivors who gathered for a mortuary ceremony – a ceremony which often brought together a number of entire villages. The ritual celebrates (as the myth also indicates) the ideal of sister exchange marriage.

This brief summary shows the relationship of objects of mediation to social 121 structure. Social structure, in the sense in which I am using the term, is most 571 clearly articulated in the marriage system, though other systems (e.g. institutionalised hereditary friendship) may also provide important clues to the structure. If the study of objects of mediation provides no more than a manual of some Orokaiva magic, the social structure provides the ultimate rationale of this magic. The structure, as analysed in this chapter, has the objectivity of a mathematical formula. The living fabric of the society has a beauty which we can never ignore and which perhaps forms the *raison d'être* of much of our study. We find this living actuality in the magical processes whereby social relationships are established, maintained and broken. We find it in the pattern of alternation of friendship and enmity, in the unpredictability of the duration of any positive or negative cycle. Barnes (1962) came very close to recognising this pattern when he suggested that the difference between African and New Guinean models may be explained by the New Guinean preoccupation with *killing*. Certainly the Orokaiva world view is greatly preoccupied with killing.

Perhaps this is a price one pays for the orientation towards exchange: one must always be prepared to see a positive cycle of reciprocity break down and a negative one begin, often in a most violent manner. Clearly, the corporate group is not a concept which leads to a full understanding of the basic operation of such a culture. It is for this reason that I have attempted an analysis in which the marriage system is the key to the structure and the institutions arise out of the operation of exchange, structured according to magical formulae which are themselves moulded by the marriage system.

REFERENCES

1. Some discrepancies between Williams' terms and mine may be due to 601 local differences or to cultural changes. It is possible that the modern prevalence of the multi-clan village has led to reduced use of the *simbo* category and to the dropping of the term *behere* between members of the same generation. Culture change may also account for the reduced use of self-reciprocal terms between alternate generations.

CHAPTER XI

EPILOGUE

I have not presented in this work all the empirical facts that may be elucidated 121
with the proposed model of Orokaiva society. I have had space to discuss only a small minority of the myths which are at my disposal but there are a number of others that are more readily understood in the light of my analysis of social structure. The description I have given of corporate activities in patrilineal descent groups has been rather summary, even though much additional evidence could have been marshalled presenting them as competitive segments of a wider non-agnatic collectivity. The rather interesting institution of hereditary friendship, between both men and women, has not been described although this forms a not unimportant part of the total exchange network. Indeed, I have not [114]
reported the exchange network in much detail at all, largely because this has already been done in my earlier work entitled *Cultural Consequences of a Volcanic Eruption Experienced by the Mount Lamington Orokaiva* (1969).

Many of the facts reported in this earlier work can be more adequately explained in the light of the analysis offered in the present one. Orokaiva reactions to the eruption, for instance, are not easy to account for unless we can explain the powerful driving force of the *iji eha* ideology discussed in Chapter IV above. The earlier work also did not elucidate the relationship between Orokaiva 177
and the white man. It was made clear that this relationship is an ambivalent one, 654
positive when the Orokaiva leader plays the roles of councillor, village constable or 'committee', but negative when he plays the role of organiser of a co-operative or of transmitter of messages with a millenarian import. Although these roles were described in detail, I perhaps did not make it clear enough that they are often played by the same individuals at different times, or at the same time, and that even if they are played by different individuals, these are not necessarily thereby placed in a position of conflict between one another.

We can, however, easily account for this ambivalence if we remember that social exchange between Orokaiva and white authorities is subject to the laws of the exchange system: there is an alternation between positive and negative cycles. Some members of an Orokaiva group may be in a positive cycle of reciprocity with white authority while others are in a negative one. This does not necessarily mean that the members of the Orokaiva group are in conflict with each other. The same members of a community may support both a co-operative to which the administration objects, and a councillor who acts as an administrative mouthpiece.

The facts are that the administration provides valuable benefits (and the mission likewise) so that there is a sound basis for cycles of positive reciprocity.

be valuable as mediator with the *dema* of the *iji eha*. In 1966–7, millennarian leadership among the Orokaiva was relatively unimportant and thus may be ascribed to a relatively high degree of positive reciprocity between Orokaiva and the white authorities. Among the more important benefits received by the Orokaiva were: the success of cash cropping, especially in coffee, the rapid extension of education, health and other valued services, and the rising influence of the Higaturu Local Government Council which was viewed as a gift from the government to the Orokaiva. 654 177

A significant growth of millenarianism would therefore indicate a growing emphasis on negative reciprocity. How should it be dealt with? According to the Orokaiva ethos, the authorities should make gifts or concessions to expiate their unsatisfactory performance. Repression of the movement would only perpetuate the negative cycle. Far from regarding the movements as a hindrance to development, I would regard them as a political process: consciously or unconsciously, they are means of bringing pressure to bear upon the authorities. The ultimate pressure is obtaining the benefits of development.

Knowledge of the rules of Orokaiva social exchange may help us to understand not only social but also political and religious patterns because exchange, in the sense in which I have used the term, represents a world view and penetrates a wide range of institutions and situations. If my method is applied to the analysis of millenarian phenomena, those phenomena would need to be described as essentially a mode of pursuing *ivo*. Now I have shown (Chapter VII) that *ivo*, whether under its aspect of expiation or communion, is fundamentally a magical device for the mediation of social relationships. It would follow from this argument that millenarianism has as its ultimate aim the management of social relations with white power bearers. This manipulative aspect of millenarianism is brought out clearly by Burridge (1960) who presents each new phase of the movements in Tangu as an attempt to establish more effective social relations with white powers. I cannot attempt here to prove with any finality that millennial movements are objects of mediation in a negative exchange cycle and that this would explain all their social, economic, political and religous characteristics. My only purpose is to suggest that the method proposed in this work can generate fresh and perhaps interesting hypotheses in many subjects of current interest in Melanesian ethnography.

Throughout this work, I have been concerned to demonstrate a method rather than to expound a theory. If, in conclusion, I shall now make a few theoretical remarks, this is to acknowledge debts rather than to develop new propositions. My debt to Lévi-Strauss is so obvious that little needs to be said about it. I have utilised the methods advocated in virtually all his major works. My use of the concepts of exchange and reciprocity as the basic principles of my analysis is due to the inspiration of Lévi-Strauss. 121

Yet Lévi-Strauss' work has less to say about the methods of ethnography than about the structural analysis that must follow after the ethnography is completed. The profound implications of his thought for the practice of ethnography remain to be elaborated. Here a number of his followers have made valuable contributions which I have found very helpful. I shall confine myself here to mentioning a few examples. Dumont has shown, by practical demonstration, that in societies where positive marriage rules exist, affinity is transmitted from one generation to the next as are consanguineal ties (1957*a*, 1957*b*). Marriage thus acquires a diachronic dimension, a principle I have utilised in analysing Orokaiva social structure on the basis of the marriage rules.

Dutch scholars such as van der Leeden (1960), Pouwer (1955) and Serpenti (1965) attempted to apply Lévi-Straussian methods to the study of New Guinean societies and at once met with a new difficulty: where unilineality is weak or non-existent, an ethnographer using alliance theory is no more able to find rules[2] which unambiguously determine the membership of marriage classes than a descent theorist can determine the membership of corporate groups. In order to overcome the difficulty, Pouwer has developed what he calls the 'configurational approach', a concept I found very useful. He starts from the supposition, derived from Lévi-Strauss, that there are 'universal mental structures' upon which the social structures found throughout the world are based. The diversity of cultures is explained by ecological and historical contingencies. Lévi-Strauss, however, has actually proposed only very few of these universal mental structures: the requirement of a rule that shall be binding, the notion of reciprocity and the synthetic nature of the gift. Pouwer argues that an ethnographer needs to assume a good number of further universal mental structures if he is to make sense of actual societies (Pouwer 1965). For the analysis of New Guinean societies, he adds to Lévi-Strauss' short list: the vertical ordering principle (descent), the horizontal ordering principle (siblingship), the spatial ordering principle (association with land) (Pouwer 1966). Societies vary according to the relative weight they give to each of these structuring principles. If one principle is clearly dominant, the society will have a well-developed system of clear rules governing social behaviour.[3] On the other hand, if several principles are of somewhat similar weight, rules will often tend to be ambiguous or contradictory. Pouwer would not agree that societies of the latter type (under which he classifies New Guinea societies) are 'loosely structured'.[4] He argues instead that the structure has the form of a configuration in which the structuring principles appear as parameters limiting an otherwise free field of action.[5] In order to explain decisions taken within this free field, Pouwer appeals to Firth's principles of social organisation.[6]

I have used the 'configurational approach' by explaining Orokaiva society as the resultant of the interaction between structural principles: agnation and reciprocity. Pouwer's other two ordering principles (spatial and horizontal) have not entered my analysis as I did not wish to complicate it unduly. The spatial ordering principle probably becomes important only if land is in shorter supply than is usual among Orokaiva.[7] The 'horizontal principle' (especially the brother-sister bond) is highly important but I preferred to treat it as the pivot of the exchange system. Burridge (1959) treated siblingship as a basic structural principle among the Tangu[8] but also demonstrated the symbolic equivalence between the brother-sister and husband-wife relationships. I would therefore suggest, at least provisionally, that Pouwer's 'horizontal ordering principle' is more conveniently dissected into (*a*) bonds between siblings of the same sex, where the principle of seniority is usually emphasised, and which may therefore be accounted for by the vertical ordering principle; and (*b*) cross-sexual sibling bonds which may be accounted for by the principle of reciprocity in the same way as conjugal bonds.

As I constructed my configuration of Orokaiva society, on the basis of the principles of agnation and reciprocity, it became obvious that the principle of reciprocity is the stronger one in all social relationships except those within rather small corporate groups. This discovery was by no means novel in the study of Melanesian societies. It was made and elaborately documented by Malinowski in his study of the Trobriand Islands. Malinowski perhaps carried his theoretical reflections upon reciprocity furthest in his book on *Crime and Custom in Savage Society* (1926) where he called reciprocity 'the basis of social structure, and explained it by 'the inner symmetry of all social transactions' and 'the inner symmetry of structure (which) will be found in every savage society'. When Schapera (1957: 147) called the use of this phrase 'extremely rash', he was justified because Malinowski seemed to ignore the vertical ordering principle which is dominant in many societies (including those in which Schapera had the greatest interest) and for which Malinowski's generalisation, of course, does not hold.

Nonetheless, we must recognise that for societies where the principle of reciprocity is dominant Malinowski's work is still highly authoritative. He was certainly right in objecting to the overemphasis placed on corporate group relations by some of his immediate predecessors such as Hartland and Rivers. He was also, in my opinion, extremely wise in his choice of the elements of culture which he singled out for special consideration. His first major work on the Trobriand Islands was, in effect, a full analysis of two objects used for the mediation of social exchange: the necklaces called *soulava* and the armshells called *mwali* (*Argonauts of the Western Pacific*, 1922). This was followed by the work already referred to in which it was shown that conflict resolution does not occur primarily by the application of a system of norms but by transactional processes where moral codes appear as rhetorical devices. Malinowski's book on *The Sexual Life of Savages* (1929) was a continuation of this theme in the area where enduring structured patterns of reciprocity, buttressed by elaborate, clearly formulated codes, are most prevalent, namely the area of affinal relations. He concurrently (1965) turned his attention to mythology and magic, treating mythology as the charter of codes of exchange and magic as an unconnected set of acts for the efficacy of which the myths were the charter.

Malinowski treated magic as determined by the structural principle of reciprocity and subordinated to the dynamics of social exchange. He wrote:

> There is not one single magical act which is not firmly believed to possess a counter-act which, when stronger, can completely annihilate its effects. In certain types of magic . . . the formulas actually go in couples. A sorcerer who learns a performance by which to cause a definite disease will at the same time learn a formula and the rite which can annul completely the effects of his evil magic. (1952, reprinted 1954: 86)

Unfortunately, after developing this insight, Malinowski proceeded to treat magic as a pseudo-science without recognising its implications for the theory of reciprocity.

Perhaps more by accident than by design I have in the present work indulged preoccupations very close to those of Malinowski. I do not even have any fundamental quarrel with my predecessor's description of magic as a 'pseudo-

121/ science' as long as I may add the qualification that this 'pseudo-science', at least among Orokaiva, is mainly concerned with the manipulation of social relations. [754] As all misfortunes are explained by Orokaiva as sorcery, and all sorcery serves to mediate negative reciprocity, i.e. enmity either on the part of the living or the dead, therefore all counter-magic is similarly part of a cycle of negative or positive reciprocity. If the counter-magic is made by the victim of sorcery, it mediates a continuing negative cycle. If the counter-magic is made by the same person who made the original black magic or *arruka*, this is done in response to conciliating gestures by the victim and signifies that the exchange has shifted into a positive cycle. Sorcery is not considered good or evil in itself nor does Orokaiva society have clearly defined norms to govern behaviour in most of the situations where it occurs.[9] It is easier to assume that the sorcerer (or his principal) has one idea of what the norms are and the victim has a different idea, and that the society will continue to have conflicting sets of norms irrespective of how the particular conflict is resolved. In some circumstances it is advantageous to shift the social relationship into a positive cycle, whereas in other circumstances it is more advantageous to fight magic with magic.

Having thus acknowledged Malinowski as one of the ancestors of the present work, I should also acknowledge the theoretical work in both sociology and anthropology which helped me to reanalyse Malinowski's data in the manner instanced above. Neither Lévi-Strauss nor his immediate followers were much help in this respect as they have not, until very recently, given detailed attention to questions of process. The study of exchange cycles, as developed in the present work, would be of little value if they were nothing but consequences of enduring structural regularities.[10] In that case there would be no difference between my exchange cycles and the 'situational analysis'[11] developed by Gluckman, Turner and van Velsen (1964). 'Situational analysis' provides meticulous data concerning conflicts involving individuals but it is always assumed that the resolution of the conflicts reasserts rather than changes the existing corporate norms.

We have seen, however, that the corporate norms of Orokaiva society are constantly changing. Clans fuse and split, relations with uterine kin go through positive and negative cycles, moiety systems arise and disintegrate, enemies become partners in alliance systems while the only enduring corporate group, the entended family, where 'situational analysis' would yield satisfactory results, is too narrow a unit for the student of the dynamics of society. Within the extended family, conflicts may actually reassert and strengthen group values. But even in a four-generation agnatic group splitting up of the group after a quarrel is normal and far from being a failure of solidarity. It is part of an atomising process which causes no crisis in the overall exchange network.

In these circumstances the prevailing pattern of social relations can be accounted for most easily by reference to a past sequence of positive and negative exchange cycles. When I speak of structure I am not referring to this ephemeral pattern of social relations but to the laws underlying the generation of the positive and negative cycles. In my discussion of the marriage system, I presented the structure as cyclical alternation of direct and complex generalised marriage exchange. One may call this the law of the operation of the marriage system. On the other hand, when I described the prevailing social organisation of

Sivepe and emphasised its resemblance to a moiety system, I explained this form of organisation by a succession of exchange cycles through which it evolved from an earlier situation when Jegase and Seho were not moieties in any sense but enemies.

This approach to the study of process derives from the anthropologists Barth (1959, 1966) and Belshaw (1967, 1970) and the sociologists Homans (1961) and Blau (1964). The relationship between the two disciplines has been complex one as Homans and Blau tend to use anthropological models in the development of their theories and Barth and Belshaw have been significantly influenced by the sociological clarification of these anthropological models. I shall discuss briefly these theories, taking Blau as my starting point. Blau writes: 'Human beings tend to be governed in their association with one another by the desire to obtain social rewards of various sorts, and the resulting exchanges of benefits shape the structure of social relations' (1964: 18). Blau distinguishes two types of benefits: 'extrinsic' and 'intrinsic'. Benefits of the former type are, in principle, detachable from the association itself, whereas a benefit is 'intrinsic' when the association itself is an intrinsically rewarding experience. In intimate relations of intrinsic significance 'individuals often do favours for one another not in the expectation of receiving explicit repayments but to express their commitment to the interpersonal relation and sustain it by encouraging an increasing commitment on the part of the other' (*ibid.*, 6). Explicit repayment is more important when extrinsic benefits are being exchanged. In my work on the Orokaiva I have dealt mainly with relations where intrinsic benefits were included in the exchange.[12]

Blau would not argue that intrinsic exchange is more 'disinterested' or 'altruistic' than extrinsic exchange. Rather, he would say that in the former case partners are more interested in the association itself than in specific benefits. The latter, Blau says, 'are sometimes primarily valued as symbols of the supportiveness and friendliness they express, and it is the exchange of the underlying mutual support that is the main concern of the participants' (*ibid.*, 95). Even in this case, however, one may speak of an exchange of benefits, as each partner offers 'support' to the other.

Blau uses this theory of social exchange to explain various forms of stratification and inequality. Inequality arises when one person needs something another has to offer but has no resources needed by the other, or needed to the same degree. What can a person do when he is unable to reciprocate? 'First, he may force the other to give him help. Second, he may obtain the help from another source. Third, he may find ways to get along without such help.' If none of these possibilities is open, the person has only one course of action left: 'He must subordinate himself to the other and comply with his wishes, thereby rewarding the other with power over himself as an inducement for furnishing the needed help' (*ibid.*, 21–2). In this way Blau explains how persons may become invested with social power, authority, influence, respect and prestige. In unequal relationships there is an imbalance in the benefits the two persons are able to offer each other; at the same time there is a compensatory power imbalance. The total association may nonetheless be said to be in equilibrium as it is gratifying to both parties. The weaker party offers such benefits as compliance, deference and respect. Unequal relationships of this kind are what Blau calls 'unilateral', as

121 one of the partners always offers one type of benefit (e.g. compliance) whereas the other partner always supplies a different type (e.g. protection). A great many exchanges discussed in this book are 'unilateral' in this sense.

Gouldner, who calls exchanges of this sort 'heteromorphic', rightly points out (1960: 172) that their equivalence cannot be determined objectively but only by actors in the situation. All we may objectively discover is whether they are both satisfied with their deal. If they are very dissatisfied they may break off the relationship or respond by negative sanctions such as sorcery, rebellion or suicide. Often such negative responses will be discontinued if the dissatisfied party is compensated and the 'balance' restored. Actors determine questions of equivalence by the principle of distributive justice, fundamental in my analysis of the Orokaiva data and stated thus by Homans:

> A man in an exchange relation with another will expect that the rewards of each man be proportional to his costs – the greater the rewards and profits of each man be proportional to his investments – the greater the investment, the greater the profit. (1961: 75)

Sociologists have carried out many empirical tests, described by Homans and Blau, to show that social relations follow economic principles of this kind. Although the tests were done with individuals from Western cultures, usually in the environment of a small groups laboratory or an industrial enterprise, Homans and Blau have both argued that the principles are of universal validity. I doubt whether anthropologists would dispute this. On the other hand there has been a tendency for anthropologists not to become absorbed in such invariant social phenomena as it is not immediately obvious how their study could help to explain differences between cultures; in most anthropological theory, culture is treated as a variable.

Yet virtually all anthropological work makes assumptions at one point or another about the universality of some underlying mechanisms of human behaviour. In particular, implicit assumptions are constantly being made in anthropological works about what men find rewarding, not just as members of a particular society but as members of a species (Homans, *ibid.*, 383).

Several schools of anthropology have recently attempted to make such assumptions explicit. The ethnoscientists seek to do this by demonstrating their applicability in every single culture they study. Lévi-Strauss seeks to isolate a set of universal mental structures through his present mythological studies. Firth has postulated a number of universal principles of social organisation. Barth and Belshaw have adopted the social exchange theory of Homans and Blau as the basis for an anthropological theory which treats social behaviour as basically economic and which aims to explain social forms by social process (Barth) and to measure the performance of social systems (Belshaw). While this anthropological theory does not significantly diverge from Homans and Blau, it develops in more detail an explanation of the genesis of value systems. It exposes as questionable a traditional assumption made by anthropologists that the value systems with which they are dealing are in a state of perfect integration. Barth showed the co-existence of several 'paradigms' (i.e. value systems) in the same culture and argued that the relative priority of these paradigms depends on transactional contingencies.

We are thus able to understand Pouwer's 'configurational approach' from a wider perspective. At any one time, a number of paradigms are present in a culture. There is no reason why they should be integrated. After a given time, a number of transactions take place and if conditions change one paradigm may acquire relatively greater weight than the other. In our study of the Orokaiva we found that this was happening with respect to the paradigms of direct and complex generalised exchange. We found two types of changes: a cyclical movement between the two paradigms caused by the internal dynamic of the system and an irreversible change under the impact of an external force. Both types of change were predictable from the model: a cyclical change was determined by the forces within the model itself whereas the irreversible change was predictable from our knowledge of the external force (Australian intervention).

Barth rightly argues that such predictions are possible only if our model of the society in question is economical and reduced to very few basic elements. ('We should not attempt to elaborate a list of all the empirical data on observed relations.') The only weakness in his theory seems to me to lie in his method of arriving at the model. In his essay *Models of Social Organization* he describes his procedure in two different ways which seem contradictory. Taking the example of descent groups and unilineal descent in the Middle East, he first derives his model from a rather familiar discussion by Radcliffe-Brown (Barth 1966: 23). He implies that this theoretical knowledge suffices for the construction of the model. After demonstrating how this simple model can be used to explain why the structure of one Middle East society changed while another rather similar one did not, Barth shyly admits that the Radcliffe-Brown proposition was perhaps not as obvious a basis for his model as he suggested at the outset:

> The form of descent groups and political corporations may be shown to vary according to the clear and definable – and perhaps superficially seemingly insignificant – differences with regard to the specific character of descent rights' (*ibid.*, 31).

If the differences were 'superficially seemingly insignificant', how then did Barth find out about their 'real' significance? It would seem that Radcliffe-Brown's essay on 'Patrilineal and Matrilineal Succession' was not the sole genitor of this model but that Barth (*a*) had to collect vast and precise field data; and (*b*) had to reduce the data to a rather abstract model, which reveals the basic elements underlying the social system. The 'minimum of specifications' to which Barth reduced the empirical data of Middle Eastern society do not differ in essence from abstract models such as might have been constructed by Leach or Lévi-Strauss. Transactionalism and structuralism are complementary rather than mutually exclusive as any structure may be regarded simultaneously and without contradiction from the viewpoint of its genesis and the viewpoint of its fundamental laws.[13]

This ends the catalogue of my principal theoretical debts. The exchange cycle model which I used as my principal tool of analysis closely resembles Barth's and Belshaw's concept 'transaction'. It is more elaborate as it makes explicit the distinction between social benefits (in the sense of Homans and Blau) and objects of mediation by which the recipient is induced to participate in social

121 exchange. Although I hope to have shown, in the present work, the practical utility of my model, I readily admit that this is no more than a first step. If intrinsic exchange gifts are 'primarily valued as symbols', as Blau plausibly maintains, then the study of the underlying symbolic systems appears to be a fundamental task for anthropologists. I have not attempted in this book to formulate rules for the construction of exchange cycles. Such rules undoubtedly exist: while the meanings given to the symbols are basically arbitrary, there are still regularities in the manner in which objects of mediation are chosen.

I visualise these regularities as rules of grammar in Chomsky's sense, i.e. an exchange cycle may be called 'grammatical' if it meets certain conditions of adequacy so as to be acceptable in the judgment of a member of the native culture[14] (Chomsky 1957, 1964, 1966). An inquiry into the nature of these conditions of adequacy appears to me a useful next step in the development of a method for the study of exchange.

REFERENCES

000 1 The fact that Melanesian co-operatives often have millenarian overtones has long been known to both anthropologists and administrators. (See, for instance, Burridge 1960 *passim*; Lawrence 1964: 209.) In the Northern District such somewhat millenarian co-operatives flourished especially shortly after the Second World War. They have been described briefly by Dakeyne (1966), and by myself (Schwimmer 1969: 85–9).

2 Barnes demonstrated this point, I think convincingly, in his well-known essay 'African Models in the New Guinea Highlands' (1962), and in his subsequent rebuttal of Meggitt's counter-claims based on the Mae Enga case (Meggitt 1965, Barnes 1967).

121 3 Though I do not believe that Orokaiva society can be usefully analysed in this way, I ought to mention that it was done in recent years in the study of Mae Enga (Meggitt 1965), Matupit (Epstein 1964), and Huli (Glasse 1959, 1962).

4 For this concept see also: Brown (1962), Cook (1966), Langness (1964), Newman (1964), Ryan (1959), Vayda and Cook (1964). Barnes (1962) likewise holds that 'apparently arbitrary processes' determine the organisational arrangements of New Guinea peoples. I am more inclined to think that we find an excess of rules and an inherent ambiguity of the rules, as Pouwer also believes. Groves (1963) gives a good example of this tendency among Motu descent groups. Scheffler's analysis of Choiseul society (1964) is also illuminating in this respect.

5 Pouwer provides an enlightening example of his configurational method in his analysis of a Star Mountains tribe (1964). Scheffler's approach (1965) is also configurational. Burridge's studies of Tangu social structure were also in effect following the same viewpoint, though he considered siblingship the dominant principle (Burridge 1957*a*, 1957*b*, 1957*c*, 1957*d*, 1958).

6 'What the concept of social organisation does is to focus on those aspects of dynamics or process in which *choice* is exercised in a field of available alternatives, resources are mobilised and decisions are taken in the light of probable social costs and benefits.' (Firth 1964: 17)

7 For an example of this approach see Salisbury 1956, 1962: 83–4. The theoretical implications of such cases have been clearly demonstrated by Leach in *Pul Eliya* (1961).

Foreword

We were aware before beginning this study that communal plantations in the Northern District had been a failure. 121 The Research Unit is generally more interested in successful ventures than in unsuccessful ones and this is the only failed experiment to have been included in our current land study programme (which includes more than twenty sample studies in various parts of the country). The reason for this study was that detailed comparative studies were being undertaken with other approaches to cash cropping among the Orokaiva and a full comparison could not be made without the inclusion of the communal experiment.

For assistance in the field I am particularly grateful 128 to Mr. Edric Eupu and Mr. Cromwell Burau as well as to the [114] people of the many villages we visited in the course of the study. Mr. Max Rimoldi kindly assisted with research from early published reports. The co-operation and interest of the District Commissioner, Mr. L. Williams, and other officials, missionaries and settlers is acknowledged with gratitude.

245 [578] operated for several months but broke down when the Hoiwo'undi, who felt that they were entitled as landowners to some extra share of the proceeds, again forbade members of other sub-clans to enter the coffee garden.

Since that time only the coffee boss and his family
have ever picked the coffee, and they only occasionally. No
maintenance has been carried out for some years. The
Hoiwo'undi people say they would like to take full control of the
block and divide it into individual plots - one for each of the six
men in the sub-clan. They would be prepared to grant a portion
of the block to the related Akute'undi of Ongoho village who
were planting food crops on some of the land at the time the
578 coffee project was started. Some Akute'undi claim that the
land is, in fact, theirs exclusively. The other sub-clans want
separate and equal divisions for each of the participating sub-
clans, arguing that all cleared and planted the coffee. It is un-
likely that agreement will be reached.

●121 We subsequently paid brief visits to sixteen other plantations which had been gazetted pre-war to determine the nature of the problems which had led to their abandonment. As time did not permit of detailed investigations, we regard the results as indicative rather than definitive. Details of the situation are set out in Appendix A.[A]

[A] [See Category 423, pp. 37-40--Analyst] agricultural techniques of cash cropping and to regular patterns of work. It is true that most of the individual plantings of coffee since 1956 were made with seeds taken from the old community blocks where the techniques of coffee husbandry had been learned, but it was there also that the people had acquired their distaste for cash cropping. 241 [245]

The fact that all attempts at developing communal cash cropping among the Orokaiva have failed does not necessarily mean that communal planting is never practicable. What it does indicate however, is that to be successful, communal farming like any other farming system, must be coupled with appropriate organizational structures, sanctions and incentives as well as with extension, processing and marketing facilities.(1) 121 [241]

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(1) Individual small-holdings do not of themselves lead to higher output. Since 1956, the nine Asigi villages which participated in the Ongoho community block have been encouraged to plant individual cash crop gardens. To date only 33 gardens have been planted (all of coffee). They cover only about 9 acres of land and contain 4,209 trees. Most are little better tended than the community block and fifteen are completely abandoned. Low price, distance to the market and lack of extension services seem to be responsible. [433] [245]

Foreword

121 The New Guinea Research Unit's current program includes a comparative study of changing agricultural and social systems among a number of groups of the Orokaiva people of Papua's Northern District. A wide variety of schemes for the development of agricultural land has been introduced there, especially over the last decade. As groups to be studied, samples were chosen which currently differ in their systems of land tenure, social organization and management of labour resources - to name the more striking general areas of difference without mention of factors which may be constant.

101 For the present report fieldwork was conducted at Sivepe village (also known as Sive) during December 1962 and January, February and early March 1963 with a brief visit again in May 1963. The basic subject of our study was a sample of 50 villagers.

128 114 Work in the field was shared by Burau, Ferraris and Rimoldi. Of the results which are presented below, the substance of the observations on types of subsistence crops and associated methods of cultivation and on the techniques currently used in the husbandry and production of livestock and of cash-crops at Sivepe[1] is the contribution of Ferraris. He also prepared the preliminary drafts of maps from which he did most of the basic calculations of sizes of landholdings and areas under cultivation.

124 Among other tasks in the field, Burau had the role of interpreter. He also clarified many aspects of the relation of the Orokaiva to their land and contributed points to most parts of the report.

128 Our thanks are due to the people of Sivepe for their hospitality and co-operation, to Mr and Mrs C.E. Searle, who in many ways provided valuable assistance, to Mr and Mrs R. Cheetham, to the staff of the Department of District Administration, the Native Lands Commission and of the Anglican Mission at Agenahambo and Sasembata, who all gave generous help. For information and discussion we are indebted to these people, to Mr H. Plant, Mr R. Spinks and especially to Mr G. Hogbin, Mr P. Krinks and Mr E. Waddell.

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[1] See Chapter 2, Sections b. and c. and Chapter 4, Section c.

Chapter 1

Introduction

101 There is no local consensus as to which peoples in the Northern
[197] District should be regarded as Orokaiva (see Williams 1930:1-4),
but all the peoples concerned recognize that they have a relatively
uniform culture and speak mutually intelligible dialects of one
[161] language. The people in this culture area number at least 25,000.

[829] Although they did not have an inclusive name for themselves
until 'Orokaiva' was introduced by Europeans, they generally drew
the distinctions among themselves between river people, salt water
538 people, and inland people (umo-ke, eva'embo and pariho). There
are wide-spread traditional beliefs dealing with the common
origins not only of these different categories of people, but also
of mutually hostile tribes, the largest political units among them,
and of the various dialectal groupings and local cultural variants,
which correspond to a limited extent with the political division
into tribes.[1]

● 121 Our study of Sivepe was designed to complement a study of land,
work and productivity at Inonda village (Crocombe and Hogbin 1963)
and other related studies in the area (Dakeyne 1965; Howlett 1965;
Crocombe 1964; and Cheetham). We attempt no general comparison
with the results of the other studies at this stage.

423 Because land tenure problems were central to our investigations,
the groups at Inonda and Sivepe were chosen from villages in the
[124] Higaturu Native Local Government Council area which is occupied
by about 12,000 of the Orokaiva. In 1956 this council adopted a
[162] scheme to register individual title to parcels of land which would
be allocated by land-holding groups to individual members for use
as cash-crop gardens. The scheme had encountered several

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[1] See Williams 1930:155; W.47, 140, 148; O.40, 411, 486, 598, 640; Folktales Nos.45, 54. W.47,... O.40,... Folktales, etc., refer to the notation used by Williams in his fieldnotes, see Bibliography, p.121.

423 obstacles,[1] but the policy of registering villagers' land was being implemented at the time of our surveys.

121 Inonda and Sivepe alike had experience with their council's registration scheme. The principal reason for working with these villages in particular is that they may be regarded as typical of two extremes among local communities in the council area. The following conspicuous variation was taken into account, in view of the need to investigate the relation of local conditions and problems to economic change in general and to the council's tenure scheme in particular.

161 Sivepe is located in the Saiho Census Division which has an overall population density of 75 persons per square mile, but there are local concentrations of much higher density, for example, 237 persons per square mile at Sivepe;[2] the density of the Saiho Division is the highest in the Northern District and the third highest among the rural census divisions in Papua,[3] but does not approach the densities found in several places in the New Guinea Highlands.[4] The density of the Buna Census Division where Inonda is situated is about 8 persons per square mile, the lowest among the Orokaiva.

The average size of Saiho villages is about 175 persons,
133 compared with an average of 100 in the Buna Census Division. The
Sivepe people live on the highly fertile slopes of Mt Lamington,
132 receiving an annual rainfall of about 160 inches; Inonda's land
is lower, flatter and comparatively poor and receives about 95
131 inches a year. Inonda is 11 miles from Popondetta on the road to
Oro Bay and Sivepe is roughly twice as far from the township,
along a road leading inland.

101 For brevity we will speak of the 'mountain Orokaiva' as an
[133] alternative to 'Mount Lamington Orokaiva'. (See Keesing 1951:5-6.)
[162] This group, we believe, was the largest socio-political unit, the

[TEXT CONTINUED ON PAGE 6]

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[1] For an account of the developments of the registration scheme see Crocombe and Hogbin 1963:89-93.

[2] Population is over 8,000 and there are 8.6 acres available per head in the census division. The personal opinion of at least some local officers has been that local densities of 200, and more, persons per square mile are not at all rare in the division.

[3] After Kaipi, Gulf District and Kuboma, Milne Bay District.

[4] However, Keesing (1951:2) maintained that these Orokaiva on the Mt Lamington slopes achieved 'perhaps the densest settlement patterns of any of the shifting "dry" cultivators in the New Guinea area'.

177 time the process of readjustment and restoration was still a
648 major question demanding attention. A few years later the third
misfortune occurred.

The eruption of Mt Lamington, which caused catastrophic loss
731 of life and dispossessed many people of their land,[1] left deep
impressions on the minds of the survivors, particularly an acute
sense of guilt which has been widely remarked upon. They felt
that God had punished them for not helping the Allies enough
during the war, and for not heeding the wishes of the mission and
the administration. Some observers ascribed both the marked
spirit of co-operation noticeable in evacuation camps and the
avowed intentions of many to obey government directions in the
[101] future, to these negative feelings (Belshaw 1951:3-6; Keesing
1951:5). By this time 'population trends indicate that with the
present percentage of children, there are likely to be consider-
[464] able increases in the future' (Plant 1951:4). The area was
closed for recruiting but this did not solve the problem of the
[797] supply of labour for reconstruction because men were drawn back
to their casual jobs on local rubber plantations and the mission
asked each village to work a day a week rebuilding mission
stations (Belshaw 1951:8).

657 After the war, compensation was paid for property of the
villagers which had been damaged or destroyed, and following the
[731] eruption a programme of resettlement and rehabilitation was
instituted.

● 121 For our investigations, Sivepe was chosen from the villages in
the Saiho Census Division mainly because it had been one of the
127 sample villages in the Survey of Indigenous Agriculture conducted
by government departments of the Territory and of Australia on
behalf of the Food and Agriculture Organization's World Survey of
Subsistence Agriculture. Information from the survey has provided
quantitative material which, though summary, is directly comparable
with results of our short survey of subsistence cultivation. The
F.A.O. survey's sample was chosen by statistical methods.[2]

121 The interest which governed our own selection of a sample of
125 manageable size from among Sivepe villagers - and comparable with

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[1] Several thousand of the Orokaiva on the slopes of the volcano were killed by the clouds of hot dust emitted at about 200 m.p.h. and 200°C. Sivepe was just beyond the limits of the area destroyed. The villagers spent about a year's enforced absence in evacuation camps (see p.76), but some neighbouring people who survived were absent from their land for far longer periods.

[2] Walters 1963:4.

121 125 that studied at Inonda - was the relationship between localized landholding patrilineal groups and their resources. The first group selected was that known as Jegase, which is intermediate in size among the 3 major groups in the village; in order to free our sample of possible bias in its age-structure and other physical characteristics, we also included the smallest group, the Timumu. This addition happened to bring the size of the sample to 50 persons.

125 [614] The inclusion of the second discrete patrilineal group slightly broadened the base of our enquiries, but study of the Jegase provided the most significant data on the subject of land tenure. The sample was made up of 12 households, 8 of them Jegase and 4 Timumu; 10 of the 12 houses contained a nuclear family, 1 contained a widower living alone and the other a widower and 2 close kinsmen dependent on him (see Genealogy on p.32 for links between households). The third major group in the village is known as Seho. Jegase, Timumu and Seho are in fact the names of 3 non-exogamous dispersed patrilineal clans[1] with branches also in other villages containing such fragments of several clans. These fragmented descent units are social categories (see Ch.3) whose members do not have 'ipso facto obligations of a specific kind'.[2]

121 [124] Our observations at Sivepe were supplemented by less systematic interviews with other villagers in what we will call 'the neighbourhood'. We find this term convenient, taking Sivepe as a point of reference, for a region which includes the villages whose members interact closely with Sivepe in the spheres of interest which we examined. It is not a social group even though there is only a small proportion of these villages outside the territory of the group named Awala.[3]

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[829] [1] Often referred to as clans by the people themselves, so that, with the possible exception of orope (see Crocombe and Hogbin 1963:17), 'clan' seems to be the only current general term in local usage, which designates a distinct type of grouping based on descent.

[2] See definition of 'clan' in Royal Anthropological Institute, 1960.

628 [3] Its perimeter is about the same as the limits of the outermost of the local 'zones' within which a notable majority of Sivepe marriages have been concentrated over 3 genealogical generations (see p.48-9). There are suggestions of a tendency at Sivepe for intervillage visiting, associated generally with direct or secondary economic interests, to be confined to villages within such a spatial range, quite small compared with the wide network of similar links in the case of Inonda (P. Krinks and E. Waddell: personal communication).

128 Besides data collected on a standard series of topics investigated in the related series mentioned above, our report also includes discussion of the relationships between land tenure and land use on the one hand and residential and local organisation on the other - questions which have been raised by anthropologists and administrators writing on this Orokaiva area.

731 178 [623] The population displaced and resettled after the eruption were almost all mountain Orokaiva; one legacy of these events was the protracted complication of land tenure, which some of the people later found an obstruction when they were caught up in a general increase in enthusiasm for cash-cropping. This coincided with the formation of the Higaturu Council whose membership consisted in large part of the mountain Orokaiva.

657 178 Community development plans made after the eruption[1] were never successfully launched, but the tenure situation in the council territory and specific areas of acute land-consciousness are the problems which patrol staff felt made it essential to regularize the tenure of cash crops at this time.

241 178 [361] In 1951 Keesing expected that the marked trend towards larger settlements witnessed after the eruption would, as a matter of course, be reversed as circumstances permitted villagers to revert to their normal horticulture involving frequent rotation of cultivated areas; paradoxically, it was in view of the spreading enthusiasm of the Orokaiva for a more intensive, commercial agriculture about 5 years later, that some mission staff anticipated similar fragmentation of the same large villages.

361 178 [121] Considerable topical interest is given to the question of the connections between settlement patterns, agricultural systems and title to land by current changes in the Orokaiva area which have implications of further radical adjustments in residential patterns. In a recent development a few local government councillors had initial success in advocating the consolidation of villages apparently as a means of establishing an economic base for the provision of local services or amenities. Members of Sivepe and other villages decided to rebuild together on land near Sasembata (E. Waddell: personal communication). Staff of the mission have for many years favoured this type of settlement among its Orokaiva [657] parishioners.[2] Although, with consistent effort, patrol staff of the Department of District Administration achieved the periodic amalgamation of pre-eruption villages, the department did not endorse the recent move and pointed out that councillors acted independently of any decision of the council or advice of its executive.

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[1] Mentioned by Belshaw, 1951.. [2] See Crocombe, 1964:31.

361 Moreover, the Yega cocoa project[1] has had a remarkable demonstration effect throughout the Orokaiva area; land development along similar lines as at Ombisusu is nearly everywhere under serious [657] consideration and, whenever undertaken, may be assumed to involve some degree of resettlement on individual blocks. It is now government policy in the district to foster this spread of smallholder projects as a matter of high priority.[2]

● 121 We have attempted some comparative discussion by introducing material on another area of closely settled populations, Chimbu.[3] Firstly, this provides contrasts in patterns of residence and mobility, the intensity of subsistence cultivation and in the results of changes in land use. The Chimbu example is an appropriate test case regarding arguments for certain necessary connections between local systems of agriculture, the stability of settlement and the potential for schemes for land development among these Orokaiva. The settlement pattern eventually formed after the eruption affords data for instructive but not conclusive comparison with the pre-eruption situation. Secondly, a consideration of Chimbu land tenure and local organization throws some light on our Orokaiva data.

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[1] This is fully discussed by Dakeyne 1965.

[2] In late 1964 the many individuals interested in these schemes showed considerable interest in the new Land Tenure (Conversion) Ordinance, 1964 (Edric Eupu: personal communication).

[3] See p.72 ff.

425 In such circumstances where the recipient and the original rightholder have lived in the same village or in neighbouring villages which are closely related and have worked together the land in question will be occupied by a person who has already established and maintained an accepted status in relation to the former landholder's group and who often has special relationships to particular kinsmen within it. At the time, accordingly, the [428] transfer is to the recipient as an individual[1] and not to a patrilineal group. After the passing of a generation however it will come to be regarded as part of the heritable territory of his agnates.

Moreover, there may be no immediate change in the use of the land involved and the extent of the rights being exercised may not be clarified for some time. In several cases we noted that a balance was eventually struck in dividing the land between claimants who were co-resident but distantly related patrikin of the deceased rightholder and those who were co-resident non-agnates.

Unfortunately, since our survey was short, we could gather little significant evidence of any disputes which may arise between parties with conflicting interest in such land. Our data include on the one hand instances where a transfer of rights still within memory has been confirmed over time and on the other the stated intentions of members of landholding groups as to the transmission of their rights.

Since the blocks involved are small and the fragmentation and interpenetration of the holdings of patrilineal groups is extensive, there is little concern for the maintenance of the continuity of the territory of these groups.[2]

[428] These transfers which are prompted by individual needs and demographic changes lend flexibility over time in the distribution of land which is a comparatively scarce resource. Population pressure has not resulted in greater conformity to the ideal system of patrilineal inheritance of available land.

171 (ii) Orokaiva and Chimbu land holding and residence compared.
121 We maintain that our account of the mountain Orokaiva shows not only the underlying contrast, in some respects, but also the significant characteristics in common with the Chimbu so that it

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[1] But in some cases a clear identification of the recipient may be arbitrary - e.g., to name him as either an affine or else a cognatic kinsman of the original holder is sometimes rather inaccurate, if the kin of these categories are father and son (see Appendix E, p.111). A

[2] See Brookfield and Brown 1963:133.

A,[See Category 428, p.111--Analyst]

[7] is appropriate to argue for the relevance of the hypothesis of
[2] Brown and Brookfield (Brookfield and Brown 1963:176-7; Brown and Brookfield 1959:74-5) concerning the allocation of the land of Chimbu descent groups and the incorporation of non-agnates. They note that among the patrilineal Mae Enga the proportion of non-agnates allowed to reside on and use land in clan territory has been shown to decrease with an increase in population (Meggitt 1958:264) whereas this correlation does not hold for the territory occupied by the Chimbu clan.

In explanation they cite the facts that in Chimbu the major political-territorial unit, the tribe, has a larger membership than the Enga unit and contains not one but several exogamous clans. Political and ceremonial functions are concentrated in the exogamous Enga clan, which has sharply defined territorial boundaries. Only in Chimbu can land needs be easily accommodated in the political unit by means of land transfers between individual kin and affines in neighbouring clans, and it is significant that individual grants are more common means of redistributing land than among the Enga.

We will focus discussion of our evidence by proposing as a reasonable correlate of the largest Chimbu territorial and political unit the Orokaiva district, on the grounds that it was a territorially distinct unit within the tribe.[1]

The first premises assumed are that the scale of difference between Chimbus or Enga and the mountain Orokaiva in respect of pressure on productive land occupied by the heavy local concentrations of populations (e.g., in Orokaiva districts) is not of significance here; and that the characteristic method[2] of ensuring equitable distribution in both the Chimbu and Orokaiva landholding systems is by frequent transfers effected through interpersonal ties.

Moreover, several differences between the 2 societies should be noted:

(1) the district in our comparison may have included an estimated 1,000 persons as against 4,000 in some Chimbu tribes;

[619] (2) unlike Chimbu there were no large-scale peace-time activities or ceremonial in which either the Orokaiva tribe or district emerged as a solidary unit (Brown and Brookfield 1959:5, 45 ff.);

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[1] We could have chosen the tribe, the inclusive effective political unit, without necessarily invalidating our comparison.

[2] Though not the only important method.

171 619 121 (3) the district had a compact territory (unlike the tribe) but its members were not all bound in mutual support in attack and defence, as were tribesmen in Chimbu where the motives of war and alliance and the territorial results of defeat were different;

614 171 121 (4) the Orokaiva clans which were scattered, often through several districts, did not have a single territorial focus and were radically different from a Chimbu clan; the latter is much more localised in a relatively continuous territory, may include 800 persons, preserves an internal solidarity and an opposition to others, and is probably the most stable social unit with its distinctive territorial and exogamic features. Clearly even a branch of an Orokaiva clan, which is the only group corresponding in significant respects, was only a fraction of the size, followed quite different settlement practices and, it seems, has long been non-exogamous (see Brown and Brookfield 1959:51, 55, 74; Brookfield and Brown 1963:11, 94, 98).

121 171 In the present study an adequate discussion of the hypothesis requires a demonstration that the same variables isolated in the analysis of the Highlands societies can be observed among the mountain Orokaiva. It is possible to state in terms relevant to the Orokaiva context the central issues involved in the accommodation or incorporation of non-agnates in patrilineal territorial groups and the function of the complex of interpersonal ties linking groups in the local community and in the political unit. *Much of our earlier discussion has dealt with residence and local organization* and we will not elaborate on the obvious points of contrast in patterns of settlement or territorial organization between these Orokaiva and the Chimbu (or Enga, etc.).

171 621 121 Over and above these differences there is in the principles of organisation of the local communities of the 2 peoples an essential similarity which enables us to argue that in a sense the largest political and territorial units in neither society often include 'descent groups as distinct territorial units. Local units are often composed of parts of several descent groups, and descent groups are scattered in several localities' (Brookfield and Brown 1963:94; also Brown 1962:68). A further principle directly applicable in analysing the Orokaiva District is expressed in the assertion of a

> high correlation between proximity of clans and frequency of intermarriage [which] brings about a high proportion of ties of kinship and affinity between neighbouring clans.... Territorial distinctiveness

> 171 breaks down between [these] clans with land loans, gifts
> 121 and membership changes....
>
> (Brookfield and Brown 1963:158)

621 Both peoples combine patrilineal descent and inheritance with a form of high residential mobility and flexible group affiliation. Within the tribe there is little difference between relationships with affines and relationships with kin in terms of ease of contact, friendliness and mutual assistance; within the local community containing members of several descent groups a solidarity is created by the characteristic multiplication of individual affinal and matrilateral relationships (see Brown and Brookfield 1959:54-6; Brown 1962:68; Brookfield and Brown 1963:78, 129, 132; Watson, ed. 1964:345-8, 352-5).

423 Individuality in land control is reinforced in both societies
by the absence of formal inherited positions of leadership and a
171 pattern of interpenetrating territories is caused by processes of
individual acquisition and retention (see Brookfield and Brown
1963:141, 156).

423 procedures for determining and recording titles were amenable to local regulation and adjustment by the institution conducting the registration. This does not mean that more than one type of right need be guaranteed or that security of title is unimportant.

657 423 A registration scheme would function best as a mechanism for resolving uncertainties over landrights in other areas where it could enhance the productivity of large blocks of land by rationalising the overlapping claims of members of 2 or more clans. Due to the extensive fragmentation and subdivision of group territories around Sivepe and the restrictions which have been imposed on the scale and range of the past movements of groups, there were no [578] apparent conflicts in the locality over rights at the clan branch level. The current incidence of interpersonal disputes affected only a few small parcels and did not seem to be a persistent obstacle to productivity.

[425] The question is now of reduced significance as the Higaturu Council scheme has been superseded by more comprehensive provisions for land tenure conversion. Nevertheless, registration of permanent individual rights, whether on a person's own land or another's, is desirable in order to preclude disputes which might otherwise arise once the value of the land is increased by the introduction of permanent improvements in the form of cash crops.

●121 [171] We contend that it is legitimate to extrapolate our local information by assuming extensive social and cultural uniformity among the mountain Orokaiva. Analysis of tenure practices and territorial organization of Sivepe groups shows that in important respects the landholding systems resemble those characteristic of certain closely-settled unilineal communities of which Chimbu might be considered the type. We therefore maintain that modern mountain Orokaiva land tenure and local organization differ considerably from the model introduced in outline by Williams in his original monographs (1925, 1928, 1930).

179 423 Finally, we wish to indicate the general significance of the type of council scheme for land registration discussed here, and this is best done by quoting at length from the report of the Mission from the International Bank. It claimed (1964:33) that solutions to land tenure problems in Papua-New Guinea would be found more readily if greater responsibility were placed 'on the native people, including the local Government Councils, to work out their own solution adapted to varying circumstances'.

This would not mean the recording of title under standard European procedures and would 'require comparative flexibility on the part of the credit organization designed to assist and stimulate native production. On this approach there could be much delegation of responsibility' among government staff and 'much

Preface

The New Guinea Research Unit has undertaken several studies among the Orokaiva as part of a programme of research into systems of land tenure and their relationship to economic development.[1] The present enquiry was designed to extend the information gained from these studies through an analysis of the organisation of work and the patterns of exchange among communities practising both subsistence gardening and cash cropping. 121 ●

More specifically, it was concerned to ascertain whether the requirements of the subsistence sector of the economy impose limitations on the expansion of activities in the monetary sector and, conversely, whether participation in the monetary sector involves restrictions on subsistence activities. Within this framework attention was directed to observing the extent of participation in commercial activities, how cash is used, whether periodic peaks of labour occur in the two sectors and whether there are common factors in the backgrounds of people cultivating cash crops. Brief consideration was also given to other phenomena influencing the relationship between the two sectors: the physical environment, the social system, the system of land tenure, the types of cash crops grown and the nature of the people's contacts with innovating agencies (principally the Administration and the Anglican mission).

Method of investigation

Simultaneous enquiries were conducted in two villages, Sivepe and Inonda, in the Higaturu Local Government Council area of the Northern District. Both had been the subject of earlier studies conducted under the auspices of the New Guinea Research Unit and much background information was available. Census data, an inventory of material possessions (including trees and livestock) and details of cultivated areas were collected. Daily records of all activities and transactions for the same individuals were entered on two schedules: (i) work organisation and (ii) acquisition and disposal of goods, cash and services. Diaries were kept to record [101] 125

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[1] See New Guinea Research Bulletin, numbers 2, 4, 6, 11, 13, 16 and 17.

125 interviews, expressed opinions, and other relevant data. Daily
meteorological observations were made in Sivepe village.

The survey was conducted over three separate periods during
121 1964-65: 3 February to 3 May, 20 July to 30 August,[1] and 9 November
[101] to 3 January. These periods were selected, on the basis of available
rainfall data and information in earlier Northern District
studies, to cover supposed seasonal variations in weather and hence
variations in the intensity of different social and economic activities.[2]
[101] Due to the intensive nature of the enquiry, it proved
difficult to extend day-to-day investigation beyond two months.

[101] In addition, the researchers spent some time in the Northern
District and Port Moresby collecting demographic and economic
statistics, information on marketing facilities and the policies
and activities of the external agencies operating in Popondetta
sub-district. This information was designed to place the selected
villages in a regional perspective.

114 The gathering of field data was shared equally between the
authors, with Waddell working in Sivepe village and Krinks in
128 Inonda; each is therefore responsible for the sections specifically
dealing with his respective village. Joint responsibility is
assumed for Part I but the preambles and discussions in Parts II
and III and the whole of Part IV are attributable to Waddell.

Acknowledgments

128 The study was made possible by a generous grant from the Rural
Credits Fund of the Reserve Bank of Australia. In the execution of
[122] it the authors owe their principal debt to the residents of Sivepe
and Inonda villages for their patience and co-operation over a
period of more than seven months when they were exposed to often
seemingly indiscreet daily observation and questioning. Vivid
[114] memories are retained of their hospitality and friendship. Amongst
them Mr Stephen Oriri was pre-eminent. The important role played
by our Orokaiva assistants, Messrs Kephas Gibobo, Walter Sivure and
Nigel Tiriembo, must also be acknowledged.

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[1] In the case of Inonda, no data were collected in the tenth week of the first period, and the second period was from 27 July to 6 September.

[2] It is appreciated that this is an arbitrary basis if one considers the concept of a year to be valid only in terms of seasonality of climate. The various facets of social and economic activities might operate on cycles of different and varying lengths, as evidenced by the 'pig cycles' of the New Guinea highlands.

Chapter 2

Contact history and the development of cash cropping

●121 The post-contact history of the Orokaiva and their experience with cash cropping are described at length to demonstrate the very limited interactions between the subsistence and advanced sectors of the economy. It is the particular character of these interactions which provides the framework for understanding contemporary Orokaiva involvement in commercial activities.

(a) Initial contact

177 The first recorded contact with Europeans was made in 1893 when the Governor of British New Guinea, Sir William MacGregor, and the Anglican missionary, Copland King, sailed along the coast as far as the Mambare River. It was, however, the opening of the Yodda valley goldfields in 1897 and the subsequent extension of government control by resident magistrates which brought the majority of the Orokaiva into the European orbit.

The first decade of contact was characterised by the extreme severity both of the resistance put up by the Orokaiva to miners travelling to the goldfields, and of the punitive expeditions conducted by the resident magistrates in retaliation for such attacks and for inter-tribal raids. Both Monckton and Murray refer to Orokaiva feelings of 'bitter hostility' (Murray 1912) and of their 'hating the government and their police' (Monckton, quoted in Walker 1909).

794 177 178 [491] [438] By 1907 the area was pacified, a road had been built from Buna to the Yodda goldfields and regular markets along it supplied carriers with food in exchange for tobacco, bottles and other new commodities. Shortly after, two cult movements appeared among the Orokaiva, one the Baigona movement, centring on magico-medical practices, the other a Taro cult, emphasising careful cultivation of taro and subsequent large feasts.[1] Worsley (1957:65-74) identified implicit anti-European elements in the latter and the beginnings of new organisational trends wherein cult leaders were

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[1] For a full description of these cults see Williams 1928.

Chapter 5

121

Organisation of work and labour availability in traditional societies

Central to the economic investigation of behaviour are the concepts of productive and non-productive activity where production may be defined as 'the purposeful alteration and combination of physical material until it reaches some desired empirical state' (Udy 1959:2) and is applied only to the manipulation of those material resources considered necessary to sustain the economic system. Such a distinction permits a rigid assessment of labour requirements and potential surplus by eliminating all socially induced activities.

Work studies are commonly restricted to a consideration of the productive sphere but the approach adopted here is to treat the whole range of activities of the adult residents of the two villages while continuing to allocate each to one or other category. This will facilitate comparison of the data with other available material but avoid any limitations associated with the productivity concept and therefore misleading assumptions as to the level of activity among the Orokaiva and the nature of their economic system.

While the term productive is widely used there is no real consensus as to the type of activities it encompasses and, among dominantly agricultural economies, the range over which it has been applied extends from 'work performed on an individual basis' (as opposed to communal work and wage labour, vide Johnston 1967:23), through strictly agricultural work (Haswell 1953) to the production of food, clothing and shelter (Fisk 1962). In the present study the term is used essentially in the last sense, although it is further extended to cover household tasks (see Table 5:1).

Apart from the specific limitations imposed on data collection through restricting investigation to such a category, more serious criticism must be levied at the customary equating of the terms *productive* with *economic*, and *non-productive* with *social* or *ceremonial* activities, as applied to traditional societies, and therefore typing the former as *work* and the latter as *leisure*. Activities normally deemed economic are those associated with the production of goods and services in an industrial economy (i.e. those which can be *priced* by a monetary system). Yet in non-market

[TEXT CONTINUED ON PAGE 69]

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Table 5:1

Activities covered by the survey and the categories to which they are allocated

Category	Activity		Category
Function	Group	Individual	Sector
Productive	Clearing		Subsistence
	Subsistence gardening:	Fencing	
		Taro (plant, maintain, harvest, market)	
		Sweet potato (plant, harvest, market)	
		Yam (plant, maintain, harvest)	
		Minor crops (plant, maintain, harvest, market)	
	Other subsistence food production:	Fishing	
		Hunting	
		Sago-making	
	Other subsistence activities:	Preparation of tools and equipment	
		Construction	
	Cash cropping:	Coffee (maintain, harvest, process, market)	External
		Rubber (harvest, market)	
	Paid work		
	Household:	Washing	Subsistence
		Cooking	
		Collecting firewood	
Non-productive	Social obligations:	Marriage	
		Death	
		Other	
		Visiting	
	Sick:	Personal	External
		Care of sick	
	External agencies:	Purchasing	
		Council work	
		Meetings	
		Church work	
		Church services	
	Miscellaneous:	Recreation	
		Other	
		Researchers	

●121 subsistence societies those activities which provide the mechanism for exchange are generally excluded since it is assumed that the exchanges are of little economic significance. As will be demonstrated such an assumption is of doubtful validity.

In societies where labour is not specialised and subsistence production dominates, the social and economic threads are closely interwoven. All actions may be considered economic in that they are concerned with the 'maximisation of satisfactions',[1] while the close association of the networks of kin with processes of production, distribution and consumption precludes the drawing of a clear distinction between work and leisure. While the term productive is a useful parameter as applied particularly to material life and in contrasting the nature of the involvement in the subsistence and external sectors of the economy, it comprises only part of the total economy. Production and labour in traditional societies must be considered as an integral part of this broader system, perhaps following Conklin (1957:152) who stresses that Hanunóo 'mixed swidden farming...constitutes a pattern for living rather than only a means of making a living or a source of food or cash income'.

There is a complexity of motives underlying the various activities and to suggest that work is oriented simply towards obtaining material goods and achieving subsistence is to grossly misrepresent the situation. 'The pleasure of craftsmanship, the feeling of emulation, the desire for public approval, the sense of duty towards the community, and the wish to conform to custom and tradition, all these and more find outcome in economic action.' (Firth 1959:175.) The point is not simply one of theoretical significance[2] but is of considerable relevance to a consideration of the development potential in these communities, and it is with this in mind that attention here is directed to the whole range of village activities.

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433 The IBRD report on 'The Economic Development of Papua and New Guinea' considers efforts should be directed primarily to the exploitation of the two major resources of land and labour, and states (1965:40) that

[464]
> The mobilization of unskilled indigenous labour for development should not be difficult; the manpower potential is large and there is evidence that many more workers could be recruited for wage employment than are now at work.

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464 The thesis that a potential surplus of labour is concealed within the New Guinea subsistence economy has been developed by Fisk. While the data which follows vindicates his main argument, two

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[1] See Burling 1962.

[2] For a detailed discussion of this see Steiner 1957.

● 121 [464] assumptions on which the thesis is based warrant discussion at this stage. These are, one, that in the 'pure subsistence unit'

> What they produce is either consumed by themselves or goes to waste. Saving is limited to the storage of such necessities as can be stored as a reserve against a rainy day, a poor harvest or sickness, and to occasional preparation for increased consumption in feasts and ceremonial. Beyond that there is no incentive to save, or to produce at a level beyond their normal immediate consumption. The level of production is therefore subject to a very definite ceiling, which may be well below their potential capacity to produce, in that when they have produced sufficient of what they know how to produce to meet their immediate needs, there is no point in producing more. The production of a surplus beyond that requirement adds nothing to their satisfactions, present or future. (Fisk 1962:463)

and, two, that 'economic and ceremonial activity are distinct and separate':

> [464] [433] Ceremonial activity and the preparations thdrefor we shall treat in the category of leisure activity, and as affecting economic activity only to the extent that certain amounts of leisure activity are socially regarded as necessary, and that the amounts of labour available for economic activities are socially limited thereby. (Fisk 1962:464)

556 [595] Power and prestige in New Guinea are dependent largely upon the control of goods and services. There is, ideally, no limit to the number of wives, pigs and gardens a man may have, and the more he has the greater the productive capacity of his particular subsistence unit. As his level of production increases, that part which is distributed as opposed to consumed increases disproportionately, and so the range and degree to which others are indebted to him increases. Not only does this serve to elevate his status but it provides him with considerable security in times of stress and when [431] making further investments. Insofar as the distributive system itself is concerned, ceremonial activities (although emphasised in the anthropological literature) may be less significant and time-consuming than informal gift-giving; although the principle of reciprocation is at the basis of both, specific goods and services do have exchange values so that they do not necessarily operate on a like-for-like basis. Thus the pattern tends towards a powerful (wealthy) individual distributing goods (foodstuffs) and being [437] [184] reciprocated with services (labour). This has the effect of increasing his capacity to produce and so further elevating his status. Political, social and economic behaviour are therefore inextricably connected and 'leisure' activities cannot be considered apart from the economic system. An example from the Orokaiva will serve to demonstrate the point.

556 An important status indicator is the size of an individual's yam
[251] holding. Yams both enter into ceremonial exchanges and are stored
for consumption during the dry season when garden foods are in short
[241] supply. Compared with taro, work on yams is 'hard' and not every-
body grows them. In harvesting the owner seeks assistance from
[431] others and the services so rendered are normally reciprocated in the
[437] form of gifts of yams rather than the subsequent rendering of an
equivalent labour service. The more assistance an individual can
solicit the greater his potential capacity to increase his yam
433 holding and so increase his standing in the community while meeting
some of the needs of those without yams. In such a case there is
no limit to the individual level of production although there is in
demand of the group as a whole. However, there is no evidence to
suggest this demand is met since annually people must resort to the
production of less favoured foods such as sago to satisfy require-
[241] ments. This suggests that the customarily defined span of activities
may be so great as to leave the people without the capacity to
satisfy their demand for yams, although the exchange system function-
ing through the network of ceremonial and leisure activities does
permit the more even distribution of scarce resources among the
group and provide its individual members with a higher degree of
security than they would otherwise have.

● 121 Disregarding the merits of Fisk's hypothesis as applied to pristine subsistence communities, virtually all are now elements in much broader political, economic and religious systems. This is directly reflected in work patterns where novel demands are made on the people's time and the level of out-migration by adult males leaves a heavier work load for those remaining behind. As the linkages with the external sector become more effective so these features, which may be largely unrelated to the increasing commercialisation of the economy, become more significant. On these grounds Salisbury's thesis (1962) that the change from a stone to steel technology has resulted in a considerable saving of labour time in certain axe-using activities cannot usefully be presented as additional evidence for the availability of labour for commercial activities.

A final reason for making a comprehensive study of activity patterns is to test the assumption that the particular nature of organisation in subsistence agriculture is well suited to the grafting on of commercial activities. In considering tillage, animal husbandry and construction in traditional societies Udy (1960:85) states:

> None of these processes ordinarily requires the individual attention of members of the production organization. It is perfectly possible to cultivate a field, tend a herd, or build a house, and be carrying on some other activity during the same period. In fact, in tillage and animal husbandry there are limits beyond which more exclusive attention to the process

> ● 121 would in effect be wasted, since at some point there is no alternative but to wait for crops and animals to mature. Similarly, in these three processes, failure of one member of the production organization to perform his role correctly would not ordinarily result in failure of the entire process. What is not done today can be done tomorrow, and what one person fails to do another can do at another time.

In fact it will be demonstrated that it may well be the particular nature of work in these societies which inhibits the extension of cash cropping and the fuller utilisation of available labour time. It is with these considerations in mind that the data relating to the activity patterns of the adult residents of the two villages are presented and analysed.

Method adopted

125 The characteristics of the sample communities have been described in Chapter 4. The survey of activity patterns was confined to the adult members of these communities (i.e. those over the age of about fifteen years) in view of the very restricted amount of work observed to be done by younger people. By so doing a larger number of households could be included in the survey than would otherwise have been possible. The actual size of the samples was restricted, in the case of Inonda, by the population of the village itself while, at Sivepe, logistical considerations prevented more than 30 [124] [123] to 35 adults being surveyed at one time. The technique used was one of daily interviews associated with observations of all individual movements in and out of the village.

Data were collected over three distinct periods amounting to a total of twenty-seven weeks,[1] the periods being selected in such a 128 way as to cover expected seasonal variations in activity patterns (see Fig.5:1). Treating each community separately the form of presentation is such as, firstly, to describe its basic behavioural characteristics for the duration of the survey and for the individual periods, and secondly, to isolate internal variations, most particularly between cash and non-cash croppers but also according to such criteria as age and sex. All activities are covered, with the exception of eating, resting and sleeping; an activity being defined as covering all time spent between departing and returning to the village (or, in the case of intra-village activities, the start and finish of the task) and so including such related events as time spent travelling and resting. Some activities have, however, been broken down for further analysis on a detailed time and motion basis.

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[1] Twenty-six in the case of Inonda.

Chapter 9

The theory of reciprocal exchange and its implications for a market economy

Theoretical approaches to the analysis of subsistence economies were revolutionised through the work of Polanyi,[1] and his particular contributions to the field of economic anthropology have recently been reviewed by Dalton (1965). Polanyi sought to emphasise

> the uniqueness, historically, of uncontrolled market exchange as the integrating transactional mode of nineteenth century national and international economy...[by demonstrating that] in primitive and archaic economies, the institutions through which goods were produced and distributed in repetitive, structured fashion, were 'embedded' in - a subordinate part of - social institutions: that the 'economy' functioned as a by-product of kinship, political, and religious obligation.... [Production and distribution were organised in terms of] two broad transactional modes that Polanyi called reciprocity (obligatory gift-giving between kin and friends), and redistribution (obligatory payments to central political or religious authority which uses the receipts for its own maintenance, to provide community services, and as an emergency stock in case of individual or community disaster). Reciprocity and redistribution are best regarded as socio-economic transactional modes because they describe internal and external appropriations, allocations, exchanges, and movements of labour, land, goods, and services induced by specific social obligation. (Dalton 1965:2-4)

Polanyi's 'transactional modes' have been further refined by such anthropologists as Sahlins (1965) - although their 'moral' overtones are sometimes questioned - and they continue to serve as the principal mechanisms for the analysis of exchange in subsistence economies. Participation within a market economy represents a radical departure from these practices, and it is in terms of such considerations that Orokaiva exchange patterns are analysed.

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[1] See especially Polanyi 1944 and Polanyi et al. 1957.

431 572 574 only made with people from distant villages, who may or may not be kinsmen, and they always involve a visit to the party making the gift. This may be followed by a return visit at a later date but there is no necessary sequence or routine. Gifts made to relatives coming from a considerable distance to attend a mourning and those received as the specific motive for a visit (as in the case of Orokaiva going to the Managalase to receive di (feathers)) are both categorised as umbare.

121 Such exchanges and transfers of goods can be seen to operate within clearly-defined social contexts. Sahlins (1965:139) notes that 'A material transaction is usually a momentary episode in a continuous social relation'. He continues,

> A specific social relation may constrain a given movement of goods, but a specific transaction - 'by the same token' - suggests a particular social relation. If friends make gifts, gifts make friends. A great proportion of primitive exchange, much more than our own traffic, has as its decisive function this latter, instrumental one: the material flow underwrites or initiates social relations. Thus do primitive peoples transcend Hobbesian chaos. For the indicative condition of primitive society is the absence of a public and sovereign power: persons and (especially) groups confront each other not merely as distinct interests but with the possible inclination and certain rights to physically prosecute these interests. Force is decentralized, legitimately held in severalty, the social compact has yet to be drawn, the state nonexistent. So peacemaking is not a sporadic intersocietal event, it is a continuous process within the society itself....
>
> Even on its strictly practical side, exchange in primitive communities has not the same role as the economic flow in modern industrial communities. The place of transaction in the total economy is different: under primitive conditions it is more detached from production, less firmly hinged to production in an organic way. Typically, it is less involved than modern exchange in the acquisition of means of production, more involved with the redistribution of finished goods through the community. The bias is that of an economy in which food holds a commanding position.... It is the bias also of a domestic mode of production.... It is the bias of a social order in which rights to control returns go along with rights to use resources of production, and in which there is very limited traffic in titles or income privileges in resources. It is the bias, finally, of societies ordered in the main by kinship. (Sahlins 1965:139-41)

Individual exchanges are not, therefore, spasmodic acts. Together they form a system founded on the network of social relations. This system, or at least those individuals who dominate it in terms of their control over the movement of the bulk of goods and services, serves to regulate the twin features of competition and interdependence among group members. This is achieved in the sense that the principle of sharing provides the group with the greatest security in time of need, and that of the disposal of goods (or capital investment), most of which are perishable, increases an individual's command over wealth and enables him to call upon it as required.

The basic difference between such an exchange system and a monetary one lies in the absence of any generalised medium of exchange and therefore of an open market where transactions are characteristically mechanical rather than moral. In order to develop such an economy it is apparent that the system of exchange must be altered, both to effect satisfactory linkages with the external sector and induce the technological specialisation necessary to substantially increase productivity. Yet it is widely considered insufficient simply to substitute cash transactions for direct exchanges of goods and services, because the particular system within which such transfers are effected inhibits commercialisation. Specifically social systems based on kinship are considered to incorporate 'levelling mechanisms' which inhibit 'aggrandizement by individuals or by special groups' because they 'have a way of scrambling wealth to inhibit reinvestment in technical advance, and this prevents crystallisation of class lines on an economic base' (Nash 1966:35-6). Further, they are believed to be incompatible with the division of labour into functionally specialised lines. Not only do the systems encourage such inappropriate consumption patterns but the very practice of reciprocation is unsuited to the individualistic and entrepreneurial qualities necessary for economic growth.

Such assumptions are, in part, founded upon the concept of equilibrium within systems of reciprocal exchange and they disregard some of the very processes by which power is achieved and asserted - through the manipulation of the flow of goods and services.

The following analysis of exchange patterns is concerned with investigating the direction and volume of flow of property in situations where monetary and reciprocal exchanges of goods and services operate side by side. By this means any differences in exchange behaviour, areas of stress or overlap between the two systems, and specific orientations in the movement of property can be identified. Further, where, in the broader context, some degree of individual specialisation is discernible - between subsistence farmer, subsistence farmer plus cash cropper, ex-serviceman settler and wage worker - functions underlying the transactions of specific goods can be determined, as can the extent of interdependence between transacting partners. Thus, in the final analysis, something can be said about the relationship of a non-monetary to a monetary exchange system in a single society and of the society's social system to the processes of commercialisation. 121

Method adopted

The approach adopted to the analysis of exchange is similar to that of activity patterns, with parallel observations being made on the same sample.[1] To simplify quantification and accurately determine the place of individual households within the exchange system, the basic unit of measurement adopted is the transaction rather than the good or service, the act of giving or receiving being identified as such. Thus, in the case of goods or services exchanged between two members of the sample, each is recorded twice - against the donor and the recipient. While most goods entering the exchange system are only transacted a single time prior to consumption certain items, particularly pigmeat, may change hands a number of times, with some subdivision on each occasion. Therefore the sum of transactions does not necessarily reflect the sum of goods and services exchanged by the sample as a whole but rather that of the sum of its individual members grouped into households.[2]

Five broad categories of goods and services are identified - subsistence produce, cash crops, labour services, storebought goods and cash - but the distinctive nature of each precludes the application of a single system of measurement. Instead three are used - weight (in lbs) for subsistence produce, time (in hours) for labour services, and monetary value (in $) for the others - and each category is discussed separately.

Further, on account of the part-subsistence part-commercial nature of the village economy, transactions fall into two broad systems - subsistence and monetary - within which both the ideal and actual form of exchange is often radically different. Thus, initially, the data are presented in such a way as to demonstrate the total volume of transactions falling within each system; thereafter the two are amalgamated and the seasonal fluctuations in exchanges, together with the area over which they operate and their relationship to kin and to the several socio-economic groups identified, are considered. Finally the exchange patterns of individual households are discussed, to include data on income and expenditure of cash during the eleven months within which the detailed surveys fell (February 1964 to January 1965). 128

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[1] In fact this survey only commenced in week 2 - at the beginning of the week in Inonda and mid-way through in Sivepe.

[2] Although all transactions are related to individuals, intra-household ones are disregarded. In effect, therefore, the 'minimum transacting unit' is the household.

437 uncommon to assist relatives from other villages in such major operations as clearing new garden sites but, with one exception, cash cropping services are confined to the intra-village level.

In conclusion, exchanges are primarily intra- and inter-village, and they operate over a highly restricted geographical range. Further, in the case of cash cropping and during the seasonal food shortages there is a tendency for this range to contract to the intra-village level.

The network of exchanges among kin

433 Apart from the absence of any generalised medium of exchange, it is the strength and ramifications of kinship networks, affirmed by reciprocal exchanges, which are believed to have the most deleterious effects on economic growth by inhibiting the accumulation of individual wealth. Thus, where an individual has access to a scarce resource, for example, money, obligations currently effective with kin permit the latter to register some claim to it, and result in its division and rapid distribution.

● 121 Murdoch (1949:92) defines a kinship system as 'a structured system of relationships, in which individuals are bound one to another by complex interlocking and ramifying ties'. The most important dimension of this system is 'distance' where, in Murdoch's case, an individual's relatives fall into four major categories - primary, secondary, tertiary and distant relatives. Primary relatives comprise members of the same nuclear family as a person - father, mother, sister, brother, spouse, son, daughter; each of these have primary relatives of their own, most of which are not primary relatives of Ego - for example, father's father, mother's brother, wife's sister - and are spoken of as secondary relatives. Each secondary relative, in turn, has primary relatives who are neither primary nor secondary relatives of Ego, and are therefore termed tertiary relatives - for example, father's brother's wife, father's sister's son, father's father's mother. Distant relatives are more remote than these.

The form and intensity of exchanges are held to be explicable largely in terms of such models of kinship. Sahlins (1965:149), in identifying a spectrum within the field of reciprocity (from 'generalised' through 'balanced' to 'negative reciprocity'), proposes that

> The span of social distance between those who exchange conditions the mode of exchange. Kinship distance...is especially relevant to the form of reciprocity. Reciprocity is inclined toward the generalized pole by close kinship, toward the negative extreme in proportion to kinship distance.

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> The reasoning is nearly syllogistic...close kin tend to share, to enter into generalized exchanges, and distant and non-kin to deal in equivalents or in guile.

He does, nevertheless, recognise three aspects of kinship distance, namely, genealogical, segmentary and spatial (or residential) distance. Of the third, he writes: 'It is not only the kinship organizes communities, but communities kinship, so that a spatial, co-residential term affects the measure of kinship distance and this the mode of exchange.' (1965:150)

Among the Mt Lamington Orokaiva exchange networks can best be understood in terms of associated kinship-residential groupings, on account of the physical separation of clans into several branches and the frequent juxtaposition of two or more such branches in a single village. Yet, even with this proviso, it is doubtful whether exchange can be viewed as the principal manifestation of social relations among kindred (if any important relations exist at all in the context of Murdoch's model) for, not only is the proportion of total production entering into the exchange system small in Sivepe, but the dimensions of the system and the number of persons with which an individual effects significant transactions are also small.

437 The following examination of the major exchange relationships of six selected individuals[1] (see Table 10:17) reveals that many are founded on a specific set of considerations, involving degrees of economic inter-dependence, rather than on general obligations to a wide range of kindred. The conclusions reached are, to a degree, determined by certain assumptions inherent in the mode of analysis. [593] Firstly, the exchanges of individual members of a household are considered instead of those of the household as a whole although a [562] man and his wife, for instance, clearly conduct exchanges on each other's behalf. Secondly, women are treated as members of their spouse's lineage group since this is the kinship context in which they are considered to be the most effective transacting agents. In spite of such limitations the fact does emerge that exchange networks are not readily explicable in terms of formal models of kinship or of exchange based on such models.

Linton. Although only adopted into Timumu clan, Linton behaves as a full member of it and retains few links with his true agnates, many of whom reside less than one hour's walk from Sivepe. The total volume of transactions effected by him exceeds that of the other selected individuals in all but two aspects: the disposal of subsistence produce and the acquisition of labour services in subsistence activities. In spite of the fact that he

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[1] The same six whose activity patterns are considered above. See pp.117-27.

433 experiences with cash cropping such intervention is urgently required among the Orokaiva.

Village life cannot yet be characterised as a 'culture of poverty' in the sense that Lewis (1966) conceives the term or Watters (1967) has applied it. Unlike the Venezuelan campesino the Orokaiva seldom express the 'attitudes of hopelessness, helplessness and resignation that are so inimical to the spirit of enterprise and innovation that is so desperately needed if traditional agriculture is to be transformed, and the modern world ushered in' (Watters 1967:40:1). As this study has shown, Orokaiva villagers are still actively experimenting with cash crops and with new forms of organisation. Despite their past experiences and the scepticism which frequently plagues current attempts, many are willing to work hard and they still seek the 'road' to prosperity. It is evident that if this 'road' is to be found it requires something more radical than the encouragement ●121 of limited cash cropping by subsistence farmers. As a prerequisite for real progress there must be a thorough-going reappraisal of the whole village economy and its place in the wider, national economy.

Summary of conclusions

While the foregoing study was concerned specifically with investigating certain aspects of the relationship between cash and subsistence cropping, the data gathered are relevant to a much wider field. The main conclusions are therefore summarised here to suggest some of the broader theoretical implications of the data. It is the authors' intention that some of these wider themes will be dealt with in later papers.

The conclusions fall into two general groups - specific statements of fact founded directly on the data, and evaluations which are derived from this factual information. No distinction is drawn between the two in this summary and the listing follows the order in which they fall within the text.

1. A very high proportion of the potential adult male labour force is absent from Sivepe (but not Inonda), while dependents are supported by close kin in the village (pp.37, 53).

2. While there have been significant reductions in the total cultivated areas since the previous surveys, acreages under yams and Xanthosoma have increased substantially (pp.41-4).

3. There have been a number of attempts recently to expand cash cropping activities, both on individual and communal bases, but with little success (pp.44-5, 59-60). Even copra production ceased in Inonda during 1967 due to insufficient trees in excess of subsistence requirements (Oriri: personal communication).

4. Both villages were transferred to new sites during or shortly after the survey (Sivepe's move being completed by 1966), apparently in response to economic considerations (pp.45, 52, 154).

5. No clear distinction can be drawn between cash croppers and non-cash croppers - there are various forms and degrees of involvement in commercial agriculture with every household participating in some way (pp.44-5, 60).

6. Most of the technological modifications which have taken place involve substitution of improved versions of the same goods for their traditional counterparts, and so the easing of many subsistence tasks, rather than changes with any commensurate radical innovations (p.64).

7. The processes of production, distribution and consumption cannot be considered apart from their social contexts in societies where labour is not specialised and subsistence production predominates (p.69).

8. Fisk's thesis of a concealed potential surplus of labour incorporates dubious assertions concerning 'productive ceilings' in view of the mechanisms by which power and prestige are achieved in acephalous Melanesian societies (pp.69-71).

9. Much potentially available labour time is lost through sickness and temporary absences from the village (pp.74, 128-30).

10. At least as much time, on average, is devoted to paid work as to cash cropping in Sivepe, although fewer individuals are involved (pp.92-3). In Inonda paid work is considerably more important (pp.141-4).

11. The productive component of time spent on subsistence and on external sector activities differs greatly, and the absolute insignificance of cash-producing activities in the work pattern must be considered in terms of the relatively unproductive nature of Orokaiva involvement in the external economy (p.94).

12. A direct relationship is discernible in Sivepe between the amount of time spent active and the age of the household head; the younger householders are both more active and, almost invariably, the ones with cash crop holdings (pp.94-6).

13. While extended periods of paid work appear to conflict with the regular subsistence gardening activities, cash cropping does not (pp.98, 144-5).

14. The division of labour by sex reflects the formal authority structure in the household where men delegate the responsibility

for meeting routine needs to the women while they concern themselves with the prediction of future needs or with catastrophic aspects of the food cycle (pp.90-101). 12)

15. With increasing age a progressively higher percentage of total activity time is devoted to productive and to subsistence tasks, and only the 25 to 44 years age group participates in all forms of activity (pp.102-4, 149).

16. Where extra-village activities recur each week, particularly early in the day, the proportion of productive work falls. Lengthy tasks, such as clearing, are virtually restricted to days free of external commitment (p.106). Those activities which assume a weekly pattern are mostly in response to the dictates of the external sector - so, in Inonda, most social activities are confined to weekends (p.151).

17. While the total time devoted to cash-producing activities is slight, they are apparently disproportionately disruptive of a subsistence routine characterised by the daily pursuit of a large number of tasks, because of their typically long duration (pp.108,151-2).

18. Travelling is a major component of activity time and is recognised to be an important determinant of the level of productivity. It has probably assumed a greater significance since contact with the expansion of the village oecumene because there have been no parallel developments in modes of travel (pp.108-12, 153-5).

19. The analysis of work organisation within the framework of specific activities reveals that the essentially non-productive aspects of travel and leisure account for almost as much time as that devoted to productive tasks. There is, therefore, immediate scope for improving efficiency at this level (pp.114, 157).

20. Work groups are typically small and seldom comprise more than individual members of a single household performing distinct but mutually compatible tasks at the same location. In most cases large work groups are associated with non-traditional activities and in the few instances where co-operative effort is customary an immediate return against assistance rendered is generally obtained (pp.114, 117, 157, 159).

21. Subsistence sector tasks account for the differences in the general levels of activity in the two villages - the differences being largely explicable in terms of their respective resource bases (pp.169-70).

22. The labour requirements of village transfers do not appear to exceed significantly those associated with the normal rhythm of repair and rebuilding in a village (p.170).

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23. The Orokaiva economy remains essentially tradition-oriented, in spite of a real need for money and the under-utilisation of available labour; recent changes in the subsistence cropping pattern reflect the need to find an improved food supply during the dry season rather than to economise on effort (pp.172-3).

24. There is no evidence for the expansion of cash cropping and paid work having resulted in any commensurate contraction in the time devoted to non-productive activities (pp.174-5).

25. That labour time which, it is estimated, has been made available through the change from a stone to a steel technology is already fully accounted for by existing external sector activities (p.175).

26. The basic issue in the further expansion of cash-producing activities appears to be one of the organisation of labour and time rather than of its absolute availability, and those cash-producing activities which do not demand a significantly different or longer work routine are likely to be preferred (p.175).

27. A broad equivalence is apparent in the exchanges of subsistence produce (pp.184-5, 233, 235).

28. Many of the purchases of storebought goods are of considerable economic significance, as in the case of food supplementing the diet during the dry season and household and personal goods which have eliminated their traditional counterparts because of greater efficiency or durability (p.191).

29. The gift exchange system serves as an important mechanism for the acquisition of cash, but only a minor part of that entering in this way is distributed in a like manner, income being used rather to purchase goods unavailable in the subsistence sector of the economy (pp.191, 219).

30. Weekly fluctuations in cash income are great and, since turnover is rapid, little capital formation takes place. Further, while there are substantial differences between households in the total value of expenditure, composition varies little (pp.199-200, 207, 248).

31. The volume and value of household exchanges vary considerably in Sivepe and the network suggests the exchange system to be primarily a negotiated and exploitative one, with the ideal of communal interests and group security relegated to a subsidiary role (pp.200, 203).

32. There are several important avenues available for the acquisition of money, and commitment to cash does not imply any parallel commitment to cash cropping. In fact, remittances rank with

proceeds from the sale of cash crops as the single most important source of income in Sivepe, and contracts between the Administration and the entrepreneur are the principal source in Inonda (pp.203, 258).

33. As with work, the intensity of exchange or activity in the monetary sector is apparently recognised, at least at the present level of commercialisation, as one criterion engendering respect among villagers (pp.204, 252-4).

34. The circulation of 'wealth' in Sivepe is differentially controlled by each of the three middle age groups, with the 25 to 34 years founded almost exclusively on non-traditional goods, the 45 to 54 years on traditional goods, and the 35 to 44 years encompassing the two where they are derived from agricultural endeavours (pp.211-12).

35. It is doubtful whether exchange can be viewed as the principal manifestation of social relations among kindred for, not only is the proportion of total production entering into the exchange system small in Sivepe, but the geographical dimensions of the system are restricted, as are the number of persons with which an individual effects significant exchanges (pp.219-20).

36. A major source of labour assistance in Inonda is non-residents - mainly youths invited to assist in specific tasks. In such an area, where the population density is low, young unattached kinsmen appear to function to some extent as a flexible reserve of labour which can be drawn upon at short notice by people over a considerable distance (pp.263-4).

37. The juxtaposition of monetary and non-monetary exchanges largely conforms to traditional concepts of morality where the principles of reciprocity operates within the 'sympathy group' and monetary transactions are effected, almost exclusively, with indigenes lying outside this group and with institutions (p.278).

38. Casual exchanges comprise only a small proportion of the total volume. Furthermore, in most instances, only a small proportion of total production enters into the distributive system. There is little evidence to suggest, therefore, that the system functions as a major limitation on productivity or individual aggrandisement (p.279).

39. The higher level of transactions at Inonda appears to be associated with the greater socio-economic diversity of the neighbourhood and the almost total lack of absentees remitting cash and storebought goods to the village (pp.279-82).

40. In the absence of a developed market economy and the scarcity of its basic prerequisite, cash, reciprocal exchanges based on

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kinship serve as an effective means of exploiting the resources available to the several socio-economic groups and of providing an important measure of social security (p.283).

41. The very limited development of cash cropping and the diversity of cash-producing activities should be viewed within the context of:

(a) the high cost of transport of goods with a low value per unit weight (p.288),

(b) a low level of productivity which is in itself a reflection of the failure to delegate responsibility effectively in communal ventures, and of inadequate agricultural extension patrols (pp.289-90),

(c) the importance placed on regularity of income and size of individual cash payments, rather than simply of returns to labour, in determining cash-producing preferences (pp.294-6).

42. Major extensions in cash cropping are inhibited by the juxtaposition of two radically different cropping systems in single units of production (pp.298-9).

Introduction

121 The New Guinea Research Unit of the School of Pacific Studies of the Australian National University invited the author to evaluate the cognitive ability of groups of subjects who were being studied as part of a larger project. These were the Orokaiva people of the Northern District of Papua. Other related studies in the area had been or were being carried out at Inonda (Crocombe and Hogbin 1963), Gona (Dakeyne 1965), Sivepe and Borugasusu (Rimoldi 1966a, b), Ongoho (Crocombe 1964), the ex-servicemen's settlement scheme (Cheetham 1963) and in expatriate plantations (Howlett 1965).

131 197 The Orokaiva live on the Popondetta plain and in the Mt Lamington foothills, and share mutually understandable languages. They have been described by Crocombe (1963) as follows:

> 105 The Orokaiva people number roughly 26,000 and are divided
> into about twelve tribes. The tribes are very loose units
> [161] and recognise no single leader and before European contact,
> [619] warfare within the tribe was not uncommon. ...there are no
> land rights at a tribal level. Each tribe is divided into
> [423] a number of named clans. A clan is seldom localised, and
> usually it is divided into a number of sub-clans which are
> [614] dispersed over various parts of the tribal territory. Each
> sub-clan holds rights over a specific area or areas of land.

177 795 There has been European contact of some form over a long period. The people are perhaps best known by the work of Williams (1928 and 1930) in which he describes the earlier cult movements and the attempts to master and control new contact situations. Two of these were the cult of the Baigona men and the Taro cult. The former was concerned with healing and sorcery through a type of priest who was in communication with the spirits of the dead and now resident in various reptiles, particularly the snake. The latter was evidenced in sorcery through a priest who was possessed with the spirit of the Taro. Violent dancing or ecstatic movements often accompanied by a trance were not unlike the dance of St Vitus or St John which swept Europe in the fourteenth century (Sargant 1957).

648 177 The initial Japanese occupation of Papua took place in the Northern District as the Japanese marched towards Port Moresby via

114 mental health of the indigenes of Papua-New Guinea by Sinclair, McElwain and Campbell (1958). In 1960 van den Hout, McElwain and Ord visited the Schouten Islands in West New Guinea and outlying areas to assess the suitability of the test for these areas. The test was found to be useful, and was employed by the Dutch administration for educational selection.

Ord's work was the first attempt at the construction of a suitable test using modern psychometric techniques. It was, in fact, the first successful construction of a major test of general cognitive ability ever constructed outside Europe or the United States. Most other tests have been specific and have not been put into more general use.

Rationale

121 Intelligence or cognitive capacity is mediated through behaviour and is manifest in performance. All behaviour is a function of innate ability compounded with environment. It is impossible to measure one in isolation from the other. However, it is considered sufficient to infer differences in innate ability from differential test performance where environmental influences are held reasonably constant for the members of any group.

The ability of the testee to adopt an intellectual approach congruent with that of the tester will often determine his performance on a test. This was shown by Runkel and Damrin (1961) in the context of university teaching and examining. The method used to find the solution may vary for the one person from time to time and vary widely from person to person. This method is different from the solution itself. It is the tactices or the method of attack on the problem. The testee will usually have available a repertoire of such tactics for problems which he perceives to be of a certain type; one or more of which he will prefer, probably since they have been successful in the past. The testee whose preferred tactic is, in fact, an efficient one for the particular kind of problem will score well because he can solve more difficult problems faster than a testee whose preferred tactic is not so efficient.

It is probably generally true that when the person who constructs the problem and the testee who attempts to answer it have the same cultural and experiential background, then the testee is more likely to have the appropriate tactics available to solve the problem than when the tester and testee have different backgrounds. This intellectual empathy or like-mindedness between the tester and the testee; or more strictly, between the demands of the problem and the preferred mental tactics of the testee, has been referred to as 'serendipity' by Campbell (1963).

121 Thus, one important factor to be considered when designing tests for cross-cultural use is degree of serendipity or congruence. Another concern is the physical aspects of testing, e.g., the way in which testees perceive certain materials and patterns and manipulate spatial forms, and the way in which test requirements are communicated.

Some test designers who have specified their tests as culture free, have meant either implicitly or explicitly that the test is constructed so as to reduce the undue influence of cultural elements when testing cross-culturally. Others, such as Goodenough (1926), have used the term more specifically to mean mere reduction of verbal content (Goodenough and Harris 1950). Such specifications are obviously inadequate.

In addition, however, another source of error arises when testers use such scales inappropriately, with little apparent awareness of limitations suggested by the authors. An example of this is the use by Jordheim and Olsen (1963) of a test designed by Cattell (1944). Cattell designed the test for use in the United States on testees with a European background and validated his study on American, Australian, French and British samples. Jordheim and Olsen used this test with modification (which is itself an uncertain practice) on the islanders of the Trust Territory of Truk and Yap in the Pacific. They reported findings which have been criticized by Kearney (1964).

A more realistic approach is to construct a test which might be described as culture-reduced. Cattell later changed the title of his test to 'culture-fair'. Even with culture-reduced or culture-fair tests it is mandatory that they be standardised on a sample of testees representative of the population with which they are later meant to be used.

The present battery was designed to specifications prescribed by McElwain and Griffiths (1958) and standardized first by Ord (1959). The specifications were that each item type

(i) was known to be a good test of general intellectual capacity for a European population;

(ii) was to be free as far as possible from language skills, reading, writing, listening or speaking;

(iii) should not require bulky equipment;

(iv) should not involve fine manipulative skills.

Over 100 item types from well known and validated scales for European samples were tried. From these, four were found to discriminate well between known bright and known dull testees. Later, as the result of further investigation, another two tests were added.

121 It became evident that the best tests were those that depended least on the translations of test instruction but utilized miming procedures for maximum communication. The performance of the test items and the test itself are part of the progressive communication and elaboration of the task.

The present study

125 [121] Seven different groups were tested. These had been selected previously by the New Guinea Research Unit for special study because of their different approaches to land tenure.

A description of the samples in order of testing is given in Table 1.

It was decided to take a sample of 20 adult males from each group. Many of these had already been included in studies planned by or undertaken in conjunction with the New Guinea Research Unit.

In the village of Inonda there were insufficient adult male testees, so numbers were supplemented by ten from the nearest related group, Hohota, about five miles away. In addition, at the time of testing three men were added to the Sivepe sample from the related village of Binduta to bring the sample size to 20. At Beporo a sample had already been selected from the Kurou clan and this was supplemented by testees from six other clans to complete the sample. The samples at Ongoho and Borugasusu were just sufficient in size to be complete. The ex-servicemen sample had been previously selected for fuller study. They came from Isevene, Sangara and Girua.

[464] Plantation labourers were selected randomly from the lines of Orokaiva tappers and clearers. Plantations often draw upon one type of labourer who may or may not come from one tribe or region. Three plantations were used to reduce any bias. They were 'Awala' plantation, 'Kagana' plantation and 'Mayoh' plantation. These labourers were not the same individuals as those studied by Howlett.

The tests used

121 125 In this study an item is defined as a single unit in a series of similar units. It is complete in itself but when joined together with the other items forms a test. A test then, is a number of similar items following the same rationale. A battery is a number of tests that can be combined in any way, depending on the requirements.

Table 8

Unrotated factor loadings

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Test	Factor I	Factor II	Factor III	Communalities
Cube Imitation	80	-36	-28	85
Bead Threading	-	-22	92	90
Passalong	59	-54	-	64
Form Assembly	83	32	-	81
Pattern Matching	68	28	36	67
Kim Game	72	-37	-	66
Gestalt Continuation	69	63	-	88
Variance	44.8%	17.0%	15.4%	

Decimal points have been omitted and loading of less than 0.20 left blank for ease of reading.

These factors were rotated using the varimax unadjusted method and are shown in Table 9.

Table 9

Factor loading rotated to a varimax unadjusted solution

Tests	Factor I	Factor II	Factor III	Communalities
Cube Imitation	89	21	-	85
Bead Threading	-	-	95	90
Passalong	78	-	-	64
Form Assembly	46	77	-	81
Pattern Matching	27	69	34	67
Kim Game	78	-	-	66
Gestalt Continuation	-	92	-	86
Variance	33.0%	28.4%	15.7%	

Decimal points have been omitted and loading of less than 0.20 left blank for ease of reading.

Discussion

In this paper the term cognitive ability is used in preference to the more commonly used term intelligence. The latter term has come to have a connotation by common usage which leads to ambiguity. Cognitive ability is used to mean 'thinking' or 'reasoning' abilities in their broader sense.

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121 From the results in the previous section two important facts
153 are evident. Firstly, there is a difference in cognitive ability between the seven samples and, secondly, there is a definite relationship between productivity and cognitive ability.

153 The analysis in Table 6 indicates that the majority of the variation between the samples is caused by the high test scores of the Beporo sample and by the low test scores of the Ongoho sample. The Beporo sample has significantly higher test scores than any of the other samples and the Ongoho sample has significantly lower scores than any other sample except for the Sivepe sample. In the latter case, although there is a difference in the mean or average test score of 4.25, this fails to reach the required significance level and the variation within each of these samples is too large to warrant any conclusion that there is a fundamental difference, although there is a trend in this direction.

The only other difference that is significant is between the ex-servicemen settlers sample and the Sivepe sample. The difference in mean test scores here is 6.90. There are differences between the other samples but these do not reach the required level of significance to be certain that these differences are, in fact, real.

The question then arises as to why the Beporo sample is better than all the others and why the Ongoho sample is poorer than all the others except one. It is not within the scope of this paper
[797] to discuss the possibilities that cause this effect. It is interest-
[177] ing to note that the village of Beporo is situated beside the Gona
[871] Mission which was established approximately sixty years ago. On the other hand, the Ongoho sample have had very little schooling and only one person had spent any time at school. There is an indication that education may have had some influence on the development of these people.

It had often been suggested to the author that people from Beporo were amongst the best workers in the district. The people from Ongoho, on the other hand, have experienced a long history of failures in attempts at communal cash cropping and other ventures. They have not established a clear reputation as they have not participated as fully in the plantation economy as many other villages.

Thus the Beporo people have a record of success and the Ongoho people one of failure. It is suggested that the ability to perform well in the plantation economy may be related not so much to particular opportunities but more to the cognitive ability of the people.

This is brought out more forcibly in the second finding, i.e., the relationship of higher productivity with higher test scores.

153 there is the ability to visualize the 'whole' and how the parts fit together or to complete the Gestalt.

The third factor which accounts for 15.7 per cent of the variance presents a more difficult task of interpretation. Because it has a very high loading on the Bead Threading test and only a smaller loading on the Pattern Matching and an absence of any loadings on all other tests, it is indicated that the factor is almost specific to the Bead Threading test. It could perhaps be associated with some type of manipulative ability, i.e., threading the beads or manipulating the tiles. Definite conclusions cannot be drawn at this stage.

153 121 From the factor analysis, the structures of the elements of cognitive ability measured by the tests emerge more clearly. This is due to the use of more accurate statistical methods than an _a priori_ assumption that each test measures some particular aspect of cognitive functioning. The overall ability level of the seven samples and the three categories are therefore seen in more detail.

The interlocking matrix of cognitive ability is complex but some elements of this are measurable. They do reflect the variation in ability from person to person. People also vary in other facets of behaviour and one examined here in a crude and simple form is productivity in the cash crop economy. The relationship of these abilities has been demonstrated. It would have been better if a more intricate and exacting measure of this productivity had been obtained. Even though productivity is sometimes related to specific influences such as economic, agricultural or even social fluctuations, these may be beyond the control of any particular person. There is also a level of cognitive ability specific to a person that tends to influence the outcome of his personal endeavour.

It would be foolish to assume that all high producers are of necessity of a high level of cognitive ability or that all low producers are of low cognitive ability. However, the trend is clear and significant.

It is often the case that external influences are circumscribed in their effect on agricultural outcome and that personal attributes such as individual cognitive ability are thought to be of only minor importance.

The ability to differentiate between successful and non-successful categories implies the ability to predict such categories and therefore select with higher probability than chance those who are likely to succeed in any venture.

Economic, agricultural and other external influences are important as are individual, social and internal emotional

153 influences. Motivation is of considerable importance but tends to be confused. It is easier for a person to say that he won't do
121 something than to say that he can't. This is certainly the case in the European culture where being poorly motivated is more acceptable than being of poor cognitive ability. The former state can be altered from time to time but the latter state is relatively unchangeable.

It is suggested that in those cases where there is a need to choose between a number of applicants, those with the greatest probability of success should be selected. Close attention should be paid to the individual's cognitive ability and this, together with knowledge of other background and environmental influences, can increase the possibility of success in any selective procedure.

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Introduction

474 Since the end of World War II there has been a rapid develop-
178 ment of co-operative marketing and retailing and in some cases
production amongst the indigenous people of Papua.

[121] This paper describes the origin of the co-operative movement
in the Northern District and its subsequent development and
[797] modification particularly as applied to Yega.[1] The Yega were one
of the first groups to organise a producers' co-operative, under
the guidance of the local Anglican Mission. The movement rapidly
extended to other groups of Orokaiva.

The development of agricultural co-operatives

474 As early as 1940 the Reverend James Benson of the Anglican
Mission at Gona had begun to preach the virtues of co-operation.
797 Benson was imprisoned by the Japanese but returned to Gona in
177 1946. The first mention of any co-operative in the district
comes as a brief entry in his diary on 6 October 1946, 'Foundation
241 of Gona Public Trust' (G.P.T.). The functions of the G.P.T. are
not clear beyond the fact that it was organized as a committee or
board - entirely Papuan in composition, with Father Benson as
advisor - aimed at investigating ways and means of improving
standards of living.

474
241 One of the most dynamic and influential members of the G.P.T.
committee was Samuel Ungega from Gombe village. He was a member

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128 [1] Acknowledgment is made to the following people who read this paper in draft and offered helpful criticism:

H.H. Jackman, Esq., Chief of Division (Business Training and Management), Department of Trade and Industry, Papua and New Guinea, formerly Registrar of Co-operative Societies (1960-2);

G. Morris, Esq., Kokopo, T.P.N.G., formerly Registrar of Co-operative Societies (1956-60);

Rev. J.L. Wardman, Mt Hawthorn, Western Australia, formerly Anglican missionary in charge at Gona (1953-61).

I

582 [437] The inclusion of cash in bride-wealth is now widespread in Papua-New Guinea. Before cash was introduced, ornaments made from shells, pigs' tusks, dogs' teeth, animal fur, etc., and feather head-dresses, household utensils, pigs and food were commonly exchanged for brides in most, if not all, parts of the country. These things are still given in the majority of bride-wealth exchanges, even when the people consider cash the most important component. Bride-wealth is usually exchanged between two groups, one associated with the bride and the other with the groom, with the result that a considerable number of people is associated with any one exchange.[1]

We do not know the volume of cash exchanged annually in bride-wealth in the country nor the rate at which this volume is changing, but the information available suggests that a significant proportion of the cash in the indigenous sector of the economy is involved. [465] For example, in Hanuabada village near Port Moresby (where the legal minimum cash wage is a little over $300 per annum) bride-wealth including more than $2000 in cash has been paid for a single marriage. In many rural areas, the ratio of cash in marriage [434] payments to cash incomes is also high. In a Siane village in the Eastern Highlands, where the average annual cash income per household in 1965 was less than $100, I counted $240 cash in one bride-wealth exchange and $180 in another.

121 There is insufficient information to permit analysis of the implications which certain practices in the indigenous sector have for the growth and functioning of the cash economy of Papua-New Guinea. These practices include bride-wealth exchanges, cash gift exchanges, gambling and hoarding. They may be beneficial to economic growth in that they may provide incentives to produce goods and services for sale. Also they may facilitate cash

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[128] [1] The collection of data for this paper was made possible by the generous co-operation of numerous people from Inonda and nearby villages, especially Stephen Oriri and Jack Umbarapa. Dr R.G. Crocombe kindly assisted in the preparation of the report; Mr C. Burau explained marriage customs among the Orokaiva; and Miss P. Richardson, Mr M. Rimoldi and Mr P. Krinks gave helpful suggestions for revision.

investment in the villages, for there is scope for an astute and influential individual to use them to accumulate cash which may subsequently be invested. On the other hand, an institution such as bride-wealth may be detrimental in that an individual may consider it pointless to earn more cash if a large proportion is to be used to assist kin in exchanges which do not benefit him directly. Also an individual may have difficulty in accumulating cash for investment if social pressures force him to contribute a high proportion of his cash income to non-commercial exchanges. 121

In addition we have no clear understanding of the degree to which and circumstances under which an individual's participation in ceremonial exchanges involving cash affords him access to the land, labour and capital resources of the group to which he belongs. Some indigenous entrepreneurs minimise their participation in these exchanges while others apparently attempt to use them to advantage.

The following description of an Orokaiva marriage and bride-wealth exchange does not contain sufficient information to allow generalisations about economic implications but may be a useful contribution to a comprehensive study of customary exchanges. The activities associated with the marriage involved people from several villages and hamlets as well as a nearby land settlement scheme. The events spread over approximately two and a half months culminating in the payment and distribution of the bride-wealth at the end of August 1962.

II

Traditionally, an Orokaiva man could acquire a wife by payment of bride-wealth; by exchange of a girl from his lineage, sub-clan or clan for another from an outside group; by elopement; or by capture (Williams 1930:130). When Europeans gained control of the Orokaiva area early in the century, marriage by capture, which had been common, was no longer possible. Since then, other aspects of marriage among the Orokaiva have changed. People may now move freely within the Orokaiva area and elsewhere, and consequently the range of villages from which an individual may choose a spouse is wider than in the pre-contact period. Furthermore, many marriages now take place at least partly in accordance with church practices. Missions[1] have failed to suppress exchanges of bride-wealth and it 583 583 171 [191]

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[1] The Anglican Mission has been operating in the area for over 50 years and has been the most influential evangelical institution there.

FOREWORD

101 In the central part of the Northern District of Papua
there is a concentration of approximately 26,000 people who are
[619] known collectively as the Orokaiva. The term Orokaiva came
into use some years after European contact, and before that time
the Orokaiva did not recognize themselves as a single group, nor
did they all interact for any common purpose. Although they do
not claim common ancestry, the various sub-groups possess a
relatively homogeneous cultural heritage. The Orokaiva speak
several dialects which are mutually intelligible and belong to a
common language.(1)

241 During the last ten years there has been considerable
development of commercial agriculture within the area. Many
241 people have planted cash crops on land held under customary
423 tenure; some villages have planted communal blocks on land set
657 aside by the rightholding clans; the Higaturu Local Government
Council (which serves most of the southern part of the Orokaiva
culture area) has instituted a scheme for the allocation of cash
crop lands to individuals, and for the registration of the land
with the Council; some Orokaiva have taken up agricultural
leases of small, family holdings on government land, and they
are provided with capital, extension services and registered
land titles; others again have entered the plantation economy
(none as entrepreneurs as yet, but many as workers on European
plantations in the area); and at Beporo (on the coast) the people
have embarked on a new experiment involving the cutting of clan
land into rectangular blocks, allocation by ballot, and the planting of cash crops by families.

121 The aim of the Unit's research is to determine which
of these systems has been or promises to be most productive
(in the economic sense) per man, per unit of capital and per
acre of land; which of them is best suited to the introduction of

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(1) The term Orokaiva has no precise connotation but is here used in its widest sense to include such culturally related groups as the Notu, Binandere, Aiga and Sangara. The word is often used in a more restricted sense to refer to those people (predominantly speakers of the Kombu-Sangara dialects) who are served by the Higaturu Local Government Council.

121 new crops and techniques of production; and which is best adapted to the emerging patterns of social and work organization. It is also hoped to obtain information on the factors which influence the peoples' preferences for one or another of the systems of land tenure and work organization.

[184] It is appreciated that no two human groups are strictly comparable, and that there are cultural, geographical and economic differences between different parts of the Orokaiva area. On the other hand, there is a sufficient degree of homogeneity to allow some useful comparisons to be made between those who follow each of the various "roads" to economic change.

101 This paper contains the results of the first study undertaken. It was carried out in the Higaturu Local Government Council area at the village of Inonda, which is one of the small, widely dispersed Orokaiva villages which are typical of the flat eastern portion of the area. A second study within the Council area has recently been completed at the village of Sivepe, which is cooler, more hilly and more fertile than Inonda, and typifies the larger, more populous villages of the closely settled western area.(1) The results of research in other parts of the Orokaiva area will be published in the coming months.

128 We wish to record our gratitude to the people of Inonda for their generous co-operation, to Mr. Cromwell Burau for interpreting not only the language but also the culture of the Orokaiva people for us, to officers of the departments of Native Affairs and Agriculture for advice and assistance, and to Dr. D.G. Bettison and Mr. M. Rimoldi for assistance in revision of the final draft. We also gratefully acknowledge the assistance of the Rural Credits Development Fund of the Reserve Bank of Australia.

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[161] (1) Population density in the Saiho census division (which includes Sivepe) is 72.9 persons per square mile, which is the highest for the Higaturu Council area. Density in the Buna census division (which includes Inonda) is 7.7 persons per square mile, which is the lowest in the Council area.

m
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Table 15

Comparison of years of absence from home village with planting of cash crops

Total years Absence from Village	Number of Coffee or Cocoa Trees	Code No. of Household Head
36	see note (a) in Table 14	8
7	288	4
5	335	1
5	178	3
5	0	6
4	150	7
4	0	5
0	0	2

554
245 There is also a close association between status in the village and the planting of cash crops. The three persons with highest status in the village are the previous head of the joint sub-clans who has now gone to the government resettlement scheme where he has planted more cash crops than any villager,(1) the subsequent head of the joint sub-clan who has most (335) coffee trees and the councillor (who is son of a former head of the sub-clan) who has the next most (288). It is clear (and supported by comparison with neighbouring villages) that those with highest status in the community are the ones most likely to plant cash crops or likely to plant most. Evidence elsewhere in the Pacific suggests that the man of influence is shifting his emphasis from traditional means of gaining prestige to modern ones based on the acquisition of money. It appears that this trend is taking place in the Popondetta area also.

121
157 It might be mentioned incidentally that Keesing (1951:5-14) considered the Orokaiva to be culturally predisposed to absorb the types of traumatic change of residence and social relations which were a consequence of extensive and persistent

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(1) He has planted 1,161 cocoa trees.

121 warfare. He sees their personality attributes as being "congruent with the social structure that favours individuality and
157 mobility". Reay (1953:111) states that Orokaiva men are encouraged to be highly individualistic. Superficially at least, these views would suggest that the Orokaiva would tend to be receptive to the changes currently being wrought by cash cropping and paid labour though, as Keesing points out, their reaction will be dependent on the monetary and other incentives which these activities provide.

242 Extension services: McCarthy (1962:110) notes that
657 the Orokaiva people "suffered at the hands of the Yodda valley goldseekers at the end of the nineteenth century and the severity
177 of the magistrate Monckton at the beginning of the new century, and it is said that they have not forgiven either occasion." Subsequent contact experiences have not been such as to alter their attitudes very greatly, and this situation detracts from the effectiveness of the available extension services.

242 No agricultural extension workers had visited Inonda during the twelve months preceding our visit and it is understood that extension patrols seldom call there more than once a year, and then only for brief visits. Several Inonda people attended a one-day extension class on coffee harvesting at Popondetta during our stay, but this was the only such class they had been aware of in that year. People can, of course, consult extension officers in Popondetta at any time, but as a result of language difficulties and social distance the Inonda people do not take advantage of this facility. The number of extension staff at present in the area is quite inadequate to serve the needs of a community which has only recently become aware of the techniques and potential of cash cropping. More extension services would probably result in extension of cash crop plantings, improved husbandry, and higher output. Pig production could also be expanded to the limits of the existing market.

491 Transport and marketing: With the completion of the Girua road there will be all-weather road access to both Popondetta and the port of Oro Bay which is soon to be developed
489 to handle overseas shipping. There is at present no commercial transport service to take produce to market and none of the villagers have transport of their own. The quantity of pro-

439 duction is at present so small that it is not difficult to take coffee or cocoa on foot and there is every indication that transport services in the roaded parts of the district will be available before output is greatly increased.

438 Coffee is sold to the Orokaiva Coffee Growers Society in Popondetta and cocoa to private traders. Cash is paid at the time of sale and in the case of coffee a bonus is also paid at a later stage if profits permit. Marketing facilities cater adequately for present production.(1)

The situation regarding perishable products is quite
[443] different. The only outlet for fresh fruits and vegetables is at
the Popondetta market which is held every Saturday. Market
[435] prices are low (by comparison with those at Port Moresby or
other larger markets) and most commodities are oversupplied.
When produce is taken to market it is not uncommon to have to
bring some back or discard it. The villagers could supply considerable quantities of fresh vegetables (particularly taro) if the
[434] demand for it could be increased. There is usually a keen
demand for fresh fish, pork and poultry, and the market could
absorb much more than is at present supplied.(2)

Some implications for policy

121 The surplus of underemployed labour among those
[464] villagers who do not work for wages (and local wage labour will
soon cease with the completion of construction contracts) can be used economically in primary production in two ways. Firstly people can be encouraged to plant additional cash crops. It has been shown that this is hindered at present in Inonda by problems of land tenure. If these were overcome an increase in productivity would probably result, though it would be limited by the present traditional demands on time.

Secondly, a small proportion of the more active and

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(1) For details of the export market for New Guinea coffee and cocoa see Reserve Bank, 1962.

(2) A detailed study of the Popondetta market by R. B. Dakeyne is now being prepared for publication in this Bulletin.

121 ambitious men could be resettled on individual holdings outside Inonda. There is no indication that freehold tenure within Inonda would facilitate improved productivity any more than the Higaturu Council registration scheme.

241
483 It is apparent that the highest productivity per man and per acre at present is achieved on the large-scale European plantations and the individual family holdings for Papuans, both of which are financed largely by government loans. The degree to which developments of this type can be extended is limited in practice by the volume of funds available from or through government agencies. The comparative productivity of these two forms of organization is now being analysed and it is hoped that the results will be available in the next few months.(1)

It is likely that at this stage only a few Inonda men would be suitable for resettlement on individual blocks, with development loans, but a number would be both suitable and willing to work as plantation labour. The feasibility of encouraging the ownership of plantations by Papuans seems to merit exploration, for experience elsewhere in the Pacific in recent years suggests that in conjunction with expansion of cash cropping by individuals or families, plantation agriculture operated by indigenous entrepreneurs may provide an important avenue to increased output from commercial agriculture.

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(1) A paper on the Popondetta plantation economy is in the course of preparation by Dr. Diana Howlett and another on the government-sponsored family holdings by Mr. R.J. Cheetham. Both will appear in subsequent issues of this Bulletin.

Four Orokaiva cash croppers

R.G. Crocombe

121 The four entrepreneurs dealt with in this paper have established themselves by cash-cropping and have subsequently expanded into retail trading. These brief case studies seek to identify some of the factors which may facilitate the emergence of entrepreneurs and some of the inhibiting factors that restrict their success and future development. Where applicable, comparisons are made with villagers of two Orokaiva villages previously studied: Inonda (Crocombe and Hogbin 1963) and Sivepe (Rimoldi 1966).

Introduction

438 Before European contact there was some trading in ornaments,
lime, pottery and woodenware among the Orokaiva, but nobody subsisted exclusively or even principally from their production or
177 marketing. With the advent of Europeans the Orokaiva became
familiar with the full-time entrepreneur who earned his living by
472 selling wares produced by others, by providing services such as
438 transport or the recruiting of labour, or by producing cash crops
using hired labour. There are few Europeans in private enterprise in the area who do not engage in all three classes of enterprise.

The advent of the entrepreneur resulted in significant changes in the Orokaiva way of life. New goods were made available and opportunities for paid employment were created. During the past
472 two generations most Orokaiva men have had some direct contact
with commercial enterprise, both as customers and as employees,
438 but until recently few have had the capital or training to engage
in the entrepreneurial roles themselves.

Entrepreneurial activity (using the term to include trading and any regular income-earning activity which involves the employment of persons outside one's nuclear family) is a recent phenomenon among the Orokaiva.

101 Field work for this study was carried out in spare time during
114 1962-65, as a sideline to other studies, by the writer, assisted
by Mr Cromwell Burau and Mr Edric Eupu. Information was collected
126 on land and food gardens, cash crops, trading, processing, transport, other property, income, work patterns and community leadership.

Twelve Orokaiva traders

W.J. Oostermeyer
and
Joanne Gray

Introduction

443 This is a study of twelve Orokaiva entrepreneurs who have
engaged in retail trading with varying degrees of success.[1] With
121 only two exceptions, each owns a cash crop also. All except one
are accessible by road from Popondetta. Although the sample is
reasonably representative of Orokaiva entrepreneurs, quite different patterns may emerge among the few more isolated Orokaiva
entrepreneurs or among the non-Orokaiva entrepreneurs in other
parts of the district.

121 Each subject will be signified by an alphabetic letter according
to the relative success of his store. The names of subjects can be
128 made available for the purposes of further research.

Information on two subject, I and K, is incomplete and possibly inaccurate in some details. Both were away from home at the time, and the questions were answered by close relatives.

Language was a limiting factor. English was used with those who
124 had an adequate command of it, but in a number of cases it was
necessary to use an interpreter. Some meaning is always lost when communicating through an intermediary, and some entrepreneurs were reluctant to discuss some personal details with an interpreter. The evidence of this report is not substantial enough to permit definite conclusions, and those proffered must be regarded as tentative.

Group I comprises four traders who were not operating their
444 stores at the time of the survey. Group II comprises another four
463 whose stores had an average monthly turnover of less than $50.00.
472 Group III comprises those with a turnover in excess of $50 a month.

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[101] [1] The data in this paper were collected by W. Oostermeyer between December 1965 and February 1966. The material was written up by Mrs Joanne Gray.

Foreword

121 This paper is concerned with an experiment initiated in 1964 in
the Northern District of Papua in which land previously held under
423 customary tenure has been converted to registered individual title
in accordance with the Land (Tenure Conversion) Ordinance 1963.
Three main aspects of conversion were examined:

(i) the motivations and expectations of the people at one of the first conversion schemes, Ombi-Tara;

(ii) the effects of conversion on productivity, land use, residence patterns, work organisation, and social life at Ombi-Tara;

(iii) the cost to the government per acre and per block (i.e. farm) of tenure conversion in the Northern District.

Much of the data on the costs of conversion was collected from
127 official files. Where recorded information was not available,
124 estimates based on interviews were used. The body of the Ombi-Tara
data as set out in Chapters 3 and 4 was gained from personal interviews carried out between 9 January and 11 February 1966. During
122 these periods my assistants and I lived in the single men's house
in Ombi village.

124 All males over the age of fifteen resident at Ombi-Tara were
115 interviewed with the exception of one old man. In addition we
interviewed two 'outsiders' who have applied for blocks in the Ombi-Tara scheme. One is a man of the main clan at Ombi (Humu) who now lives in a neighbouring village but intends to move to Ombi soon. The other is a Papuan Agricultural Assistant who is stationed at Ombi but whose home village is near Cape Killerton about forty miles away. Interviews were conducted in the local language through interpreters.

128 Interviewing has serious defects. The answers one gets can only
be as good as the questions asked. Although we followed up all
answers with probes and long, informal discussions, talking is a
poor substitute for rigorous and sustained observation over a
[121] period of years. The only justification for using this method is
that time was short, and that this paper is intended only as an
exploratory attempt to examine the operation of the 1963 land
tenure conversion legislation in the only district where it has
so far been applied.

571 against sickness, crop failure and other catastrophes. The mutual
[602] obligation system which operates among kinsmen 'acts as a man's
trade union, his friendly or benefit society, his slate club and
[182] his orphanage; it takes the place for him of health insurance, and
if needs be provides for his funeral' (Lawrence 1964:34).

● 121 If it is hoped to set up individual farmers independent of their kinsmen some substitute must be found for the traditional method of social insurance. For as Fisk (1961:777) has pointed out, 'in an underdeveloped country...ready and prompt access to assistance in time of need is a variable of considerable importance to the settler'. Attempts to break down traditional obligation patterns by individualisation of tenure have often met with little success. In Egypt (see Gadalla 1962:80) and in various parts of the Pacific (Crocombe 1964b:127 and 1965:15) land registration schemes designed to result in individual tenure have failed to achieve individual ownership and use of land.

476 There are indications that traditional obligation patterns may
be continuing at Ombi-Tara since tenure conversion was introduced.
571 Blocks were cleared by kin groups in accordance with custom. Two
178 men mentioned that there had been an arrangement whereby if a
person worked on the block of another man but the second man did
[689] not reciprocate, he would have to pay the first man 80 cents.
However, both people said that no one had had to pay it. Two men who were working for wages on road maintenance near Ombi village bought food from the nearby store for those who helped clear their blocks. Five people claimed that they had helped clear other people's blocks but had not received any assistance in return. Everyone who was questioned said that no new obligations had been established by the process of clearing but this may be open to question.

423 It has already been mentioned that conversion involved substan-
tial redistribution and equalisation of right holdings. Whether
657 obligation to the 'donors' will be established as a result is a
matter for future observation.

The blocks of three of the four absentee blockholders were being cleared and planted by kinsmen. The block of the fourth absentee had not been cleared at the time of our stay. It is likely that some obligations will be established by this assistance.

Two families are living in houses constructed on the block of another man; and several people have cocoa, coffee or bush rubber trees growing on blocks held by other people. These situations are discussed on p.29 below.A

The Ombi man who moved to his block to protect his taro from the sorcery of another villager replanted some of his taro on the block of a kinsman, for further protection. This was the only reported case of a person planting crops on the block of another

A [See Category 425--Analyst]

657 423 also likely to occur if any of the blockholders decides to extend his holding beyond the present boundaries.

[249] More than 13,000 rubber trees were planted before the Land Titles Commission hearing took place. Although this caused no difficulty at Ombi-Tara, a similar occurrence at other schemes could have serious repercussions if a dispute should arise at the hearing, or if an appeal should be lodged afterwards. At the Yega scheme the villagers agreed to give a block to the Papuan Assistant Agricultural Officer who had helped them with subdivision and planting of cash crops. On the day of the Land Titles Commission hearing they withdrew this offer. A similar offer was made to the Papuan Agricultural Assistant at Ombi. By the day of the Land Titles Commission hearing he had planted more than 700 rubber seedlings on his block. Awkward consequences would have ensued if the people had decided to withdraw their offer at the hearing. The possibility of quicker registration, perhaps by the Local Government Councils, may be worth examining.

●121 Pest infestations and declining soil fertility. If the introduction of individual farming on consolidated blocks leads to the cessation of the bush fallowing system of agricultural production there will be pest problems. Otherwise the holdings would have to be larger than the amount of arable land available in most areas. It was noted earlier[1] that the bush fallowing system is well suited to the production of annual food crops in tropical areas. Newton (1960:85), writing about New Britain, concluded: 'The concentration of food crops into an area cleared from rain forest has resulted in a fairly rapid multiplication of diseases and pests of colocasia, sweet potato, peanuts and sorghum.' Without fertilisers and advanced agricultural techniques soil fertility may decline in areas where there is continuous cultivation of food crops.

[452] Credit. The government decided not to offer credit facilities to participants in land tenure conversion schemes in order to prevent people assuming that tenure conversion was associated with financial assistance, but the District Commissioner of the Northern District has said that contrary to his expectations only two applicants for conversion have asked for financial assistance. One was extremely tentative and the other sought a loan of perhaps $25 (Williams 1966:7).

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2 (continued)
presumptive right to extend their holdings. We were told that in each case the two persons involved had negotiated a solution to this problem.

[1] See p. 6.A

A [See Category 241--Analyst]

121 452 The need for credit at Ombi-Tara where rubber is being planted may be less than at schemes where other crops are being promoted.[1] Bauer (1948:318) stated that where tapping and processing of rubber is done by family labour, 'many small-holders could almost be referred to as no-cost rather than low-cost producers'. The visiting World Bank mission suggested that credit could play an important part in securing local interest in planting rubber in consolidated areas, in organising group processing and marketing, and in providing scope for enterprising men to increase production (International Bank for Reconstruction and Development 1965:111).

It has been suggested both by the District Commissioner (Williams 1966:7) and by a former Agricultural Officer in the Northern District (Cheetham 1962:67-78) that it may be an appropriate time to reassess official credit policy, looking particularly at the criteria for providing credit to smallholders. Cheetham (1962:77) concluded: 'A farmer's ability to repay may be a better criterion on which to provide loan capital than the present notion of "credit-worthiness" in the sense of adequate tangible farm assets.'

Cash cropping and productivity

657 423 182 [311] It is too soon to determine the effects tenure conversion will have on cash cropping and productivity. However, even at this early stage a few observations may be made. The acreage under cash crops at Ombi-Tara has increased significantly since conversion. Before conversion was introduced, 167 cocoa trees, 92 coffee trees and 19 bush rubber trees were planted per adult male at Ombi-Tara.[2] In the fourteen months after the villagers began planting high yielding rubber on the converted blocks an average of 304 seedlings was planted per adult male.

[434] [464] [177] There is no shortage of food or suitable agricultural land. Both terrain and climate are favourable for growing rubber. There is easy access to Ombi-Tara from Popondetta. Villagers are able to earn money to buy rubber seedlings from the Department of Agriculture by tapping their bush rubber, by working on road maintenance, or by working for wages on the Sangara ex-servicemen's plantations. The proximity of the Sangara plantations and the existence of bush rubber stands at Ombi-Tara provided villagers with experience in tapping and handling rubber. The Sangara plantations also serve to demonstrate a 'European way of life' which many villagers find attractive and wish to emulate.

[241] Tenure conversion appears to have contributed to the improved cash cropping performance mainly by reducing the labour inputs required to establish cash crop gardens, thus increasing labour

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[1] For example, the processing of green leaf into tea requires substantial investment (Clayton 1961:623).

[2] Excluding the two 'outside' blockholders and a man from Tara who declined to be interviewed (see p.1).

Appendix A

Process and costs of tenure conversion in the Northern District

121 This Appendix attempts to estimate roughly the economic costs of tenure conversion. Land tenure conversion can only be justified if the economic and social benefits to be derived from it exceed the economic and social costs of its execution. Information is not available to allow comparison of costs and benefits from alternative methods of promoting agricultural development.

Procedure

657
423 The procedures to be followed in converting land held under customary tenure to individual registered title are set out in the Land (Tenure Conversion) Ordinance 1963 and the Land Titles Commission Ordinance 1962. The country is divided into a number of 'adjudication areas' and within each a 'demarcation committee' (with a majority of indigenous members) is established to prepare demarcation plans marking the boundaries of all native held land within the area. If a group is acknowledged as the undisputed holder of an area of land, members of the group may apply to hold portions of the land under individual registered title.

The Land Titles Commissioner prepares a conversion plan and publishes notice that the application will be dealt with after three months, during which time objections may be lodged. If he is satisfied that all persons with rights in the land agree to the application and that adequate compensation is provided for interests abolished or reduced by conversion, the Commissioner issues a conversion order. Ninety days is allowed for appeal and thereafter the conversion order is sent to the Registrar who registers the applicant as the owner of an estate in fee simple. Upon registration of individual title the land ceases to be subject to native custom and all previously existing rights are abolished.

The procedure followed in the Northern District differed from that laid down in the Ordinance in that conversion began there over a year before adjudication areas were mapped out (in January 1966) and no compensation was paid to persons losing rights to land - nor has any been requested by villagers.

Appendix C

Factors associated with high cash cropping activity

121 Although this study is mainly concerned with land tenure conversion, information was also collected on factors associated with high cash cropping activity which may be of interest when compared with related findings published in earlier New Guinea Research Bulletins.

249 472 Blockholders resident at Ombi-Tara had planted an average of 348 high-yielding rubber seedlings by 1 November 1965. The nine men who had planted more than the average were compared with the remainder of the Ombi-Tara population to determine whether they differed significantly in education, non-traditional experience, age, clan, religion, number of children, sources of income, responsible positions held in the village, languages spoken, cash crops planted before conversion and attitudes as revealed in answers to the questionnaire. In most of these characteristics there was a striking similarity between the nine men and the total population. However, several differences did emerge.

While there was almost no difference between the average number of years spent in paid employment by the sample and total populations, there was a significant difference related to responsibility, skills and locality of employment. The nine above average planters included six of the eight Ombi-Tara men who had been to Port Moresby and two of the three who had been to Rabaul. Jobs held in these towns tended to be of a more skilled and responsible nature than those held by other villagers. In Port Moresby two men were employed as policemen for nine and two years, one worked for two years first as a plumber's assistant and then as a labourer, and the other three each worked for twelve months as a workshop assistant (and later as a survey assistant in Popondetta for four months), an office boy, and a labourer respectively. The two men who went to Rabaul worked as painters with an oil company for eighteen months. The man who spent nine years in Port Moresby as a policeman was also employed as a domestic servant at Kokoda for twelve months, the only Ombi-Tara man to have a job of this nature.

One of the nine men is Charles[1] and another is the clan leader of the Mumu clan. A third is the joint custodian with Charles of

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[1] See p.11.^A

A [See Category 464--Analyst]

632 changes in rural areas. For a man to leave his
177 village and go to work in the town means long
separation from his family and from his kin,
632 an experience unheard of in the past. Separation from his relatives means that he may be
464 facing dangerous risks from the sorcery of
602 foreigners in an unknown country. This is one
361 reason why migrant workers tend to live in
kin clusters in the towns. Unemployment, in-
[754] adequate living quarters, low wages, the necessity for paying in cash for all goods and services, and the obligation to send cash gifts to relatives in the villages, all add to the town dwellers' difficulties.

● 121 The three areas to be studied in this book are:

1. The north coast of Papua, near Popondetta, inhabited by the Yega people.
2. Central Bougainville, near Kieta, inhabited by the Nasioi people.
3. Port Moresby — two indigenous communities.

These three areas have been selected because they are all experiencing rapid change. Moreover, they are areas of actual or potentially great economic development. The stresses and strains put on the traditional way of life in such circumstances are particularly severe; study of such situations may help to give students a deeper appreciation of the problems faced by the people of New Guinea today.

Northern Papua and Central Bougainville are rural areas where the inhabitants have a primarily subsistence economy basically similar to that of their traditional culture, but modified by the innovations introduced by Europeans and latterly by their own educated younger members. There are, however, important differences which are summarised below.

133 *Topography.* Northern Papua is a gently-sloping, almost featureless plain, covered by rain forest interspersed with grassland, traversed by a few braided streams and many small creeks. Central Bougainville is mountainous with peaks up to 7,000 feet above sea level. Steep, tree-covered slopes, rocky outcrops, and rushing streams which rise rapidly after rain are typical features.

614 *Social.* The social structure of the Yega is
613 localised patrilineal clans, sub-clans, and lineages, inhabiting a few square miles of land.

[P-3-B]

000 rates of pay than do the plantations. There is, however, disagreement between the indigenes and the mining company regarding the future distribution of profits from the copper.

361 171 Although there is a marked similarity in the structure of buildings in the two areas, settlement groupings are dissimilar, partly because of topographical differences but particularly as a result of the recent changes which have occurred in the Yega pattern of settlement.

121 The third area of study, that of the indigenous community in Port Moresby, is distinct. It has been included because more and more village people, particularly young educated men, are choosing to live and work in towns and it is rightly recognized that, although the towns contain only a small fraction of the Territory's population, the people living in them are the most politically sophisticated, vocal in their dissatisfaction of their present status and, of all the country's inhabitants, most susceptible to propaganda. The distinction is made in this section between those indigenes who are the traditional inhabitants of the land where Port Moresby now stands, and those whose lands are elsewhere but who now live and work in the town. It is this latter group that is classified as indigenous migrants.

[P4-B)

RECIPROCITY AND STRUCTURE: A SEMIOTIC ANALYSIS OF SOME OROKAIVA EXCHANGE DATA

Erik Schwimmer

Université Laval

After outlining a semiotic method of studying reciprocity and gift exchange, the vernacular terminology of the Orokaiva system is outlined, with reference to an extremely simple myth. On the basis of a more complex reciprocity myth, a connexion is laid between the rules derived above and the Orokaiva perception of world order. While the Orokaiva rules follow the principle of balanced reciprocity, these rules are in practice so interpreted that actual behavioural norms are close to Sahlins's model of generalised reciprocity.

I

121 Is 'reciprocity' a useful concept in anthropology? A recent article by MacCormack (1975) has answered this question largely in the negative. The purpose of the present article is not to argue with MacCormack, who raised some useful questions, but to clarify the issue with the help of relevant data.

There are two types of reciprocity theory. The first, which we may call naturalist, views reciprocity as a means of maximising economic and social advantage. By this view, the form of expression usually requires minimal explanation. According to the second type of theory, the principle of reciprocity is presented as 'one of a number of structuring principles which underlie the organisation and functioning of the human brain' (Pouwer 1974). More specifically it is, as Lévi-Strauss said, 'the most immediate form of integrating the opposition of self and other' (1967: 98).

Most social anthropologists (including Malinowski) write as though there were truth in both. Sahlins's theory—one of the most useful, in my opinion—blends the functionalist and the structuralist-semiotic approaches. His almost classical subdivision of reciprocity into generalised, balanced and negative is presented in functionalist style: 'A purely formal typology of reciprocities is possible, one based exclusively on immediacy of returns, equivalence of returns and like material and mechanical dimensions of exchange' (1974: 191). Yet, in practice, Sahlins showed deep awareness of subtleties of cultural meaning which make the classifying of reciprocity systems a task of great delicacy, as distinction has to be made between kinds of perceived equivalence. He wrote freely about the 'ideal of reciprocity' (e.g. 1974: 135), about 'rules' to which it gives rise and about behaviour that can be explained by it. In laying such connexions, he was applying structuralist-semiotic

Man (N.S.) 14, 271–285.

[p.271]

methodology, thus offering himself as a target for MacCormack's abovementioned criticism.

Functionalist methodology, as we know, studies behaviour and rules stated by informants. From this material it derives empirical generalisations concerning ideal norms, behavioural norms and deviance. When MacCormack criticised exchange theory in general, and Lévi-Strauss, Sahlins and myself (Schwimmer 1973) in particular, for not distinguishing clearly between structuring principles, rules and behaviour, he was applying just that methodology. He did not allow for differences in methodology that inevitably arise out of differences in theoretical orientation. In the present article I shall spell out semiotic methodology as it applies to the study of reciprocity, with the intention of demonstrating that it has its own kind of rigour and interest.[1]

Let us first consider the general relation between the 'principle of reciprocity' and social forms or 'institutions'. The principle of reciprocity is one of the structures around which men organise their thoughts. It is one of a plurality of such principles whose relative importance varies from one culture to another. Each culture might therefore be seen as a 'configuration' of such principles (Pouwer 1966), cultural differences being expressed by the relative weight given to each one. Social forms are therefore represented, with a frequency varying from one culture to another, by invoking a principle that can be glossed as reciprocity. The semiotic study of reciprocity takes as its domain all action and discourse in respect of which that principle is invoked, in the context of specific, heuristically chosen social forms or 'institutions'.

Let us now consider what is involved in the semiotic study of 'institutions'. I shall follow the method proposed by Bouissac (1977), based on Searle's (1969) linguistic theory. Searle's term 'institution' has been retained but does not have quite the same meaning as in functionalist anthropology. In an 'institution', we should distinguish *regulative rules* from *constitutive rules*. Social anthropology has traditionally been concerned with the former, i.e. rules about whether actions are obligatory, permitted, forbidden and so on. Searle (1969: 33, quoted by Bouissac) defines constitutive rules as the condition of possibility of some category of phenomena which we call 'institutional facts' as opposed to 'brute facts'.

We may say about ritualised prestations what Bouissac proceeds to say about circus or theatre performances: they are 'conspicuously institutional facts' and:

> their very existence is conditioned by institutions, i.e. by 'systems of constitutive rules' of the type: 'X counts as Y in context C'. Therefore, it seems that spectacles [*or ritualised prestations*—E.S.] can legitimately be considered as grammars . . .
>
> These grammars not only enable us to form and understand messages of a special kind but also to construct specific contexts for these messages. They include at least some topological rules, proxemic rules, chronemic rules, social behaviour patterning rules, coding rules, syntactical rules, situation patterning rules and performing rules (1977: 144).

In the semiotic study of exchange, it is constitutive rules of the type described here that we need to establish. An institution, such as a feast or theatre performance, may be analysed syntagmatically as a sequence of events.

121 We have to establish values for X, Y, C for each episode, i.e. for each prestation. Under 'social behaviour patterning rules', we would need to treat formal and contextual social relations between classes of actors as contexts because a quite different 'meaning' needs to be attached to a prestation according to whether it is made between, for instance, cross-cousins, affines, feasting partners or hereditary friends. (For the Orokaiva, these differences are glossed in Schwimmer 1974.)

We could not retain the otherwise very useful class of 'convertibility rules', first established by Firth (1939), because prestations of taro, yam, areca nuts, pig, different types of ornaments etc. may follow varying 'rules of syntax'. Even if such objects belong to the same 'sphere of exchange', their convertibility as signifiers can never be assumed on the basis of a functional classification but must each time be established by specific semiotic investigation.

[497] [591] To give another example, in an investigation of daily intra-village taro prestations among Orokaiva I found that the meaning of the gifts was systematically affected by their frequency (chronemic rule) and by the distance between donor's and recipient's residences (topological rule). Subtle nuances in social distance could thus be signified.

These examples give some idea of the kind of rigour the semiotic analysis of exchange demands. While most kinds of constitutive rules to be discovered in exchange systems fall into the standard types enumerated by Bouissac, there are two kinds that may be specific to ritualised prestations. These need to be briefly presented. The first kind may be called 'equivalence rules', and specifies the conditions under which two patently different objects will be deemed to be 'equivalent' in the sense that one is fair (balanced) exchange for the other. The term is due to Daniel de Coppet (1968) who gives examples, taken from Malaita ethnography, that show very clearly that the equivalence here is not inherent in the objects exchanged but purely in the representations Malaitans have about what they stand for.

If we use the same symbols as before for constitutive rules, and write a transaction as two prestations P_1 and P_2, and if

$P_1 = X_1$ stands for Y_1 in context C
$P_2 = X_2$ stands for Y_2 in context C

then P_1 and P_2 are equivalent if the recipient in P_2 considers them to be so. Where social relations between exchange partners are, ritually speaking, symmetrical, equivalence will normally be restored by a return gift of objects of the same kind, the same quantity, the same quality. The need for writing equivalence rules arises where role attributes or formal capacities are complementary, and where X_1, X_2 cannot be objects of the same kind so that their equivalence must be established by a cultural rule. The most famous example is the *mwali/soulava* exchange in the *kula*. Malinowski wrote (1922: 356) that the two ornaments are 'equivalent' if of the same quality. Also, 'the armshells are conceived as a female principle and the necklaces as the male.' Moreover, speaking metaphorically of Dobuans (recipients of 'female' *mwali* armshells), Trobrianders said 'they are women'. We may therefore in this case

121 write Y1/Y2 as men/women. De Coppet deals with the relations: murderer's
clan/victim's clan and wife giver/wife taker. Schwimmer (1973) adds: land
giver/land taker; human partner/spirit partner. In all these cases the
equivalence rules give values for X1, X2.

The second type of constitutive rules specific to ritual prestations are
'translation rules', i.e. rules about the translation of sentiments into prestations
and about inferring sentiments from prestations received. These rules are
437 elicited by asking informants *why* gifts were made. (In Orokaiva, the nearest
equivalent of *why*? is *do eto*?, meaning: what having been done, what having
been?) I found that (except for identical return gifts), such questions were
usually answered in terms of sentiments felt or professed by the donor towards
437 the recipient. Bridewealth was always explained as a way of appeasing the
583 wife-givers' anger at the taking away of their daughter. This anger is not just
in the wife-taker's mind but is expressed by the wife-givers by certain stock
actions and phrases (as in any joking relation) behind which there are
individual variations in genuine attachment to the daughter, genuine aversion
437 to the affines and shrewd calculation. To give another example, many feasts
are made in order to restore amity between groups, in which case the small
574 preliminary gift of betel nut and food accompanying the invitation (*sope ikari*,
Schwimmer 1973: 151) would stand for an offer of amity (translation rule)
and acceptance of the invitation would signify the prospective guests'
willingness to forget past grudges.

121 Semantically, gifts encode sentiments in many ways: by what is given, how
much, of what quality, in what manner, where, when, in the context of what
relationship and so on.[2] The recipient decodes: he reads the donor's
sentiments in the prestation—the only language that, in the cultures discussed
here, does not lie. Words are not to be trusted: but a gift is sacred like a
statement under oath. Sentiments do not, of course, objectively explain gifts
but the translation rules specify what message a particular gift conveys about
the donor's sentiments. While social anthropology may not be interested in
sentiments as such, it should be interested in the codes in which they are
ritually expressed and in which the receiver is urged to change his own
sentiments. To the extent that the principle of reciprocity has weight in a
society, conflict will tend to be resolved by prestations that will re-establish
sentiments of amity rather than by the interpretation of (often ambiguous)
rules of law. Such prestations recompense the distress caused rather than the
torts committed.

121 The rest of this article will present an example of semiotic analysis of an
exchange system. This analysis, based on Orokaiva data, starts (part II) by
128 investigating terminology used in discourse about gifts, debts, exchange and
reciprocity. It explores the relation between the constitutive rules and the
ideology of reciprocity.[3] The second step in analysis (part III) will relate this
ideology to the overall Orokaiva world-view, thus demonstrating that the
principle of reciprocity is not an observer-improvised category but an integral
part of the conceptual system. Finally (part IV), we shall consider the relation
between the constitutive rules and transactional practices and test Sahlins's
theory of exchange against the semiotic analysis of Orokaiva data.

II

My fieldwork in 1970 was planned to obtain Orokaiva texts describing and 121
explaining the Orokaiva exchange system. In Sivepe, the principal village of
my 1966–67 research, I found two very good Orokaiva informants willing to 124
record on tape their reply to the question: 'what is exchange?'. The [126]
recordings, made in a single day, took the form of dialogues between the two informants after the style of radio interviews. I did not intervene except at the outset, to present the question.

Prior to the taped discussion, I tried to establish whether Orokaiva have any 437
notions corresponding to Mauss's theory of the three general obligations of giving, receiving and repaying gifts. I had no difficulty in finding strong prescriptions for the first of these, namely giving. As for receiving and repaying, I searched assiduously for evidence of a general obligation but could find only a number of specific contexts where repayment was obligatory as well as some ritual contexts where receiving was obligatory. On the other hand, the general obligation to give turned out to be a key principle of Orokaiva ideology.

The verb for making a gift is *ikari* which also means 'to put down, to 196
forward, to throw away' and in sexual intercourse, to ejaculate. In general,
therefore, *ikari* implies a recipient, but not invariably. *Ikari* is ubiquitous in 437
everyday life. A person makes and receives probably dozens of gifts in an average day. Nearly all these are small gifts which in themselves have little economic value: dishes of cooked taro, coconuts, areca nuts and the 'fixing' of betel nut, tauga nuts, tobacco and paper for rolling cigarettes. Some of these occasions for *ikari* involve two persons, donor and recipient, but many others involve several, namely one donor and several recipients. Coconuts, betel nuts, tauga nuts, tobacco are usually shared out by those who happen to have a supply to all those who happen to be around when the sharing out is done. The term for sharing out is *hande ari*; the word *hande* may be glossed as 'generous', 'generosity'. It applies irrespective of the economic value of the objects shared out. A man generous and clever in giving is called a *hande embo*.

This concept is distinct from that of reciprocity; the generous man is not, of course, he who gives when he expects a big return, but he who gives when he
expects none. This aspect of *hande ari* is emphasised in ideological discourse, as 773
an example of which I was quoted a simple story which, so I was told,
Orokaiva parents teach their children. Some variants of this story are of great 437
anthropological interest but the Orokaiva children's version given to me has the form of a simple moral tale.[4] The hero and his wife, both filthy, ill-dressed, covered in scabies, came from the coast to an inland village as part of a visiting party. The other members of the party were received hospitably and invited to stay in one or another of houses in the host village. The dishevelled couple, however, were left standing in the burning sun, as nobody wanted them for exchange partners. (Gift exchange partnerships between individuals tend to be established by just this kind of invitation by a man from the host group to a stranger from the guest group. When the stranger leaves for his home, his host

437 from behaviour, because Orokaiva parents give their children, for instance,
school lunches, just as parents will do anywhere. It is only when the
593 anthropologist inquires how such behaviour is *classified* by actors, that we find
differences, e.g. that an occidental mother will say she is doing her duty to her
children when an Orokaiva mother will count the school lunches along with
other lots of gift exchange taro she has distributed that day. If the
anthropologist proceeds to ask whether the mother expects a counterpres-
tation, a minimum of casuistic talent will suggest the answer to her that she
will get it all back in her old age.

437 The hard fact is that some *tihanga* are collectable, others not. Naturally one
collects what one can. A more apposite but difficult field of enquiry would be:
when do people stop allowing others to accumulate uncollectable debts? The
commonly given, almost standard answer to unwelcome requests for *hande* is:
irae (it's all gone). This is by no means always true but, over a longer run, it
would be hard indeed to stop giving until the supplies are gone. The only
room for exercising free will is in deciding to whom one will share out what
[426] one has. Orokaiva do not accumulate debt to the same extent as many other
more hierarchised New-Guinean groups,[5] because there is a rule against
borrowing for ceremonial prestations. Big men may give on such occasions;
they may not lend. Even so, a good part of any *hande* will go to sundry
creditors, while the rest will go to set up debts among others. Here the social
scientist cannot hope to write rules for what is essentially an art.

554 One may say that the highest social status is reserved to the skilled
437 manipulator, the *hande embo*, who is also often called *otohu embo*, a term
discussed in much detail elsewhere (Schwimmer 1973; ch. 9) which means not
only a generous, honourable man, but even in a sense, 'a holy man'. My field
data show that the persons in my village to whom this term may be most
nearly applied, practised great care in balancing their accounts and minimising
their debts within the village. It was those who lacked ambition for 'big man'
status who allowed their debts to ride indefinitely. They did ask for help in
feasting and other more or less public causes, but not often the kind that set up
437 *tihanga* against them. It may also be relevant that the rules I have been setting
out here do not apply so closely to European type resources such as money and
436 objects bought with money and I never heard that it set up a *tihanga* if a friend
pays your taxes. Money was, at the time of my research, little more than a toy,
except if it became 'sacralised' by being included in a bridewealth or other
ceremonial prestation. To be sure it then became an *integral* part of the
Orokaiva exchange system, but even then I do not believe that money could
become *tihanga* in the sense that its repayment was seriously demanded upon
[121] dissolution of a marriage. Perhaps the explanation of this paradox lies in
Sahlins's theory of *hau*: the possession of valuables such as ornaments has a
definite *yield*, in blessings gained by the donor, *hande mine* gained by the
lender. On the other hand, money (except if kept for other ceremonial
prestations) vanishes without a trace, without any noticeable yield, at least
among Orokaiva. Presentation of money at a wedding or other ceremony,
while highly honorific, is in fact a destruction of value, like coppers at a
potlatch.

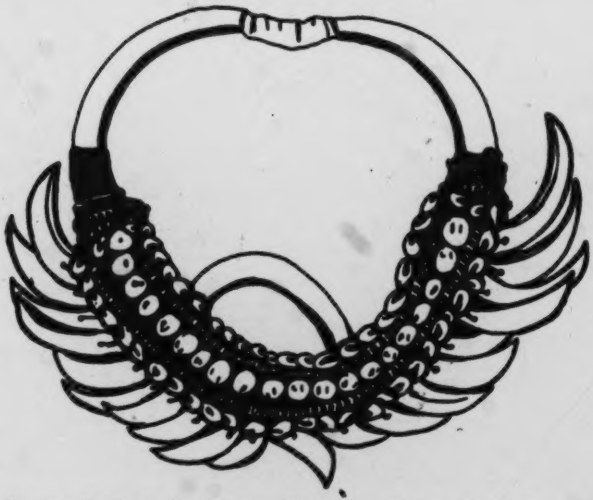

FIGURE 1. *Ganda*, Northern Province of Papua New Guinea (author's collection).

pereho, meaning bush pigs, a term they used so frequently that the first whites 437
who tried to make ethnographic maps of the Northern District tried to find
the exact location of the 'tribe' Orokaiva called the '*pereho*'. It was hard to put 773
on the map, as the *pereho* category included quite different groups according
to who was speaking. My concern was here to give the conceptual boundaries
of the exchange universe in Orokaiva terms, but there are real geographical
boundaries, different for each village, which correspond to such concepts.
Williams (1930) already spoke of two systems of Orokaiva morality, one
within the 'sympathy group' which is his term for the exchange universe, and
another where there is, in principle, a permanent state of total war even 1
though there will always be a few islands where trading partnerships are
found.

IV

If semiotic analysis has no difficulty in revealing categories of balanced and 121
negative reciprocity, what about Sahlins's most fruitful and original category,
generalised exchange? It is possible to find a category of relations among 437
Orokaiva where it is denied that any *tihanga* is ever recognised. There are 196
plenty of gifts, but no gift would ever be explained as *mine* or *hande mine*. I
doubt however whether that particular category corresponds to 'generalised
reciprocity'.

It includes, first of all, *hande* on a very small scale, like a single coconut, areca

121 nut or cigarette. Secondly it includes help in most everyday tasks, including help with housebuilding and the like. Thirdly, it includes the very important
437 category of very close kin who are deemed to pool their resources. Thus
196 bridewealth, mortuary and other big prestations involve, as a matter of course, an entire local plant emblem group where every member is expected to put in all he has. Such groups have corporate leaders, usually the oldest agnate and such leaders have supposedly full authority over all the group's resources. Within those narrow confines, they need not cajole like the *hande embo* but theoretically they can instruct. They always told me this. It so happened that I did not know any families who habitually followed such instructions. In any case it is at least theoretically possible to separate out a category of actions based on structuring principles such as 'verticality', 'horizontality' rather than reciprocity.

121 Orokaiva ethnosociology does not seem to recognise a *category* of rules that lies between incorporation and balanced exchange. Yet, Sahlins has argued,
437 on what seems irrefutable evidence, that in societies such as Orokaiva 'balanced reciprocity is not the prevalent form of exchange' and even that it is 'inherently unstable' (1974: 223). According to him what is prevalent and stable is generalised exchange. Even if we subtract a little from Sahlins's generalisation to allow for the meticulous strategies of some leaders, for the tendency to abandon 'balance' where western money becomes important, for the horror of debt bondage found in egalitarian societies like Orokaiva, for pooling in corporate groups, we are still left with many facts of generalised reciprocity.

We must, moreover, reject any attempt to explain such facts as 'organisational', as mere strategising, in contrast with other tendencies of the system that might be termed 'structural'. Such an assumption, though common enough, implies that it is sometimes possible to explain the relation between a given material condition and a specific cultural norm by the mediation of a symbolic system (as we have been doing above) but that sometimes it is not possible; that when we are dealing with deviations from the norm such deviations require only a 'common sense' explanation.

What then are we to say of the innumerable transactional sequences where, in principle, one of the transactors is in debt, but where nobody is at all interested in balancing the account? The debts are not reckoned but if the creditor feels the need for some help, he goes to his debtor and asks him for it. Can such sequences be incorporated as part of the semiotic model we have outlined? We think they can. We cannot incorporate them as part of equivalence rules, because such rules normally, at least among Orokaiva, do specify strict balance. We can, however, deal with them under the heading of translation rules.

Let us say that for years A has been helping B in a long list of predicaments. B is trouble prone while A is solid. B is generous enough but he rarely has something to give. A tolerates the situation without demur because he likes the B household; he does not at all feel anxious about repayment. Nor does B feel particularly ashamed of his position. In such circumstances, there will be a long series of gifts, for which the translation rule will be something along the lines of 'A feels sorry for B'. As long as that sentiment prevails, the equivalence rule is in abeyance. But it will become operative as soon as there is a quarrel. 121 Then, however, what B will have to pay is not the accumulated ledger. B will 437 have to pay, according to the model I have been using, *for the anger felt by A*.

It has already been often remarked, for instance by Williams in his work on the Orokaiva (1930), on the Kutubu (1976) and on primitive justice in general (1941), that in such societies one has to pay for anger, for slights, for psychological suffering, rather than for what is objectively on a ledger. If A becomes angry, he may use the ledger as his basis of claiming from B; he may just as easily demand vast compensation for 'insulting my sister', an item that does not appear on the ledger at all.

We thus face a paradox: there is an ideology of balanced exchange, but debts claimed are not necessarily those due by the rules of equivalence. By Sahlins's theory, the importance of the ledger increases with social distance. This may well be so, because social distance makes a great difference to the translation rules. In the cases where exchange is meticulously balanced in quantity—where one measured the height of the piles of taro—the translation rules usually specify that the exchanges serve to make peace, to assuage anger, to compensate for something unpleasant. From the semiotic viewpoint I am taking, it is they and not the social distance as material and mechanical fact that determine the importance of keeping a ledger.

There is a final point: balance is not only a matter of ledgers but also of equality. In an unbalanced relationship, there is a narrow line between A feeling 'sorry for B' and A feeling superior. If A should feel superior enough to B to slight him, then the anger caused by the slight would at once wipe out the ledger, at least among Orokaiva. There are peoples who more or less permit a creditor to slight a debtor. Those who do not permit it, like Orokaiva, feel some attachment for equivalence rules.

The scheme outlined here does not make a material and functional classification like Sahlins's unnecessary. On the contrary, such a classification is a necessary control on the kind of analysis here proposed. All that is claimed is that functional classifications should be made to pass through the grid of semiotic systems.

The anthropological task, with regard to reciprocity, does not however end at that point. For anthropology, this model of a closed semiotic system is a tool for resolving other, much broader questions which are best classed as historical. The penetration of Australian capitalism has introduced a very 437 different concept of exchange, a kind of fusion of the balanced and negative modes, destructive of Orokaiva social relations, but profitable economically. 177 The co-existence of the two systems in the same society has given to the Orokaiva exchange system an ideological weight it did not previously have, in that it began to stand for Orokaiva cultural identity as ideology, in opposition to capitalism as ideology. This polarisation had not begun in 1970, but it was strong in 1973, at least in the village of Kiorota.

NOTES

101 The data presented here were gathered in the Northern Province of Papua New Guinea in
summer 1970 with the help of a research grant from the Canada Council. The paper was first
122 presented at a seminar at the Department of Anthropology, University of Chicago. I thank
faculty and students at that seminar for their comments, which have led to clarifications of the
128 text.

[1] This article does not discuss what I believe semiotic anthropology to be and what is its
121 relation to French structuralism. The reader is referred to Schwimmer 1977.

[2] It was suggested to me that 'translation rules' may be what Peirce called 'motivations'. Upon reflection, I would suggest that all the constitutive rules of ritualised prestations are concerned with motivations. For instance, taros displayed on a platform at a wedding could be regarded as motivated signs because they are conspicuously part of an 'institution'. If we need a semiotic analogy for 'translation rules', we might say they specify the relation between expression form and expression content in Hjelmslev's sense (1963), where the prestation as message is the expression form and the sentiment immanent in the prestation is the expression content.

128 [3] MacCormack (1975) rightly remarked on the gap in my monograph (Schwimmer 1973) in
respect of the Orokaiva's own rules about reciprocity. There was no reason to expect that he
should have been aware that I presented a paper about these rules (Schwimmer 1970). The
present article incorporates the main data of that paper, as well as of a later paper presented in
Paris in 1974, on the occasion of a conference of French and Canadian ethnographers at the
Musée des Arts Populaires.

773 [4] Two tribes neighbouring Orokaiva have myths concerning figures closely resembling
Javaite Poromo, but far from being simple moral tales, these are elaborate myth cycles whose
171 heroes, Wasis for the Ai'i and Ine for the Omie, are said to be the principal exemplars for the 'big
man' system in those tribes. Data on these myth cycles were gathered by two Toronto graduate
437 students, namely T. N. Barker for the Ai'i and M. Rohatynskyj for the Omie.

[5] See for instance Fortune (1935) for Manus and Meggitt (1967: 1971) for Mae Enga.

000 [6] The story is in F. E. Williams's Notebooks now stored in the government archives at Port
Moresby and the property of the government of Papua New Guinea. Cf. Notebook W 56 for
437 1923, quoted in Schwimmer 1973: 140.

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CORRESPONDENCE

Virgin birth

Sir,

121 [114] The contributions by Spiro and Kaberry in your June issue (3, 242–61, 311–13) and the continuing correspondence (3, 631–6) prompt me to mention briefly the views on physiological paternity held by the Orokaiva of Papua, as explained to me when I was doing fieldwork there in 1966–1967.

842 [775] The Orokaiva believe that a child is conceived when the spirit of a dead kinsman wishes to enter a new human body. If a newborn child is a male, it is believed to have been formed as the result of sexual congress between the father and mother both of whom have contributed 'blood'. The birth of the male child is, therefore, explained by a combination of two events, the entry of the spirit and sexual intercourse. If a newborn child is a female it is believed to have been formed by 'a woman sleeping alone', i.e. the female child is not thought to have a human genitor. While this theory leaves open the possibility of 'virgin birth', Orokaiva notions about the development of the embryo go against it. The growth of the embryo must be stimulated by frequent sexual intercourse. A spirit is said usually to choose a sexually active woman for its rebirth.

553 842 The customs concerning the naming of children are consistent with this theory. The naming of girls is always left to the mother's consanguines as the spirit which entered her is thought to belong to a deceased maternal consanguine. The naming of boys is more complicated as the question arises whether the spirit entered the mother and thus fertilised her, or entered the father and passed from him to the mother. In the former case, it is presumed that the spirit was a dead consanguine of the mother; naming is then entrusted to the mother's consanguines. In the latter case, it is presumed that the spirit was a dead consanguine of the father whose kinsmen are accordingly entrusted with the naming ritual. About half of the male babies are, according to my records, named by maternal relatives, and half by paternal ones.
851 [614] A medicine man (*sivo embo*) is called in to determine to whose side the spirit of a male baby belongs. Both the male and the female babies become part of the paternal clan (the Orokaiva are patrilineal). If a man has paid bridewealth for a woman, he is pater to all the children borne by that woman as long as the

[p.132-A]

not unlikely to meet her request. Her brother's 614 children will fear her constant demands and 182 her threats of sorcery. Her actual power is so great that a religious construct, proclaiming her social distance from the men of the clan, and making her look low and insignificant, may help somewhat to keep the embattled [842] clan patrimony together. It is therefore tempting to treat Orokaiva parthenogenesis theory as offering further evidence for the tension between patrilateral and matrilateral kin, though this tension could be demonstrated more easily by less esoteric means.

114 The Orokaiva case makes one wonder just what constitutes 'knowledge of physiological paternity'. Leach writes about 'basic 171 facts of physiological paternity' (1967: 41) 842 which anyone but an idiot would know. On the other hand, Spiro speaks of a 'theory' and compares 'physiological paternity' to the 'heliocentric universe' (1968: 244)—the latter was a theory that man did not have until the fifteenth century. Spiro does not quite indicate at what point in time mankind obtained 'knowledge' of the former theory, but he evidently thinks it was well before the birth of Jesus. I am not sure just how Spiro would classify the case of the Orokaiva: are they 'ignorant' of physiological paternity or not? Are they less ignorant than the Trobrianders but more ignorant than the Dobuans (who do not believe in virgin birth at all)? Do not all these groups derive their theory on this subject in precisely the same way, namely in the context of a metaphysical cognitive system? It seems to me that a significant difference between the Melanesians and modern man, if it exists at all, does not lie in the substantive content of their theory of physiological paternity, but in the capacity of modern man to show by empirical evidence that the Trobrianders are wrong, the Dobuans right and the Orokaiva in between. As for the contemporaries of Jesus, they seem to resemble the Melanesians rather than modern man, in that they had no such empirical evidence.

● 121 I think that in primitive thought we should distinguish between empirical generalisations, which may often imply no more than a rough statistical correlation, and deductive theories [813] implying causal connexions. It is notorious that primitive thought will easily move from [824] the former to the latter, as the Orokaiva do, for instance, when they note that *tauga* leaves fall while the main taro crop is coming up and postulate that it is the dropping *tauga* leaves that cause the crop to prosper. There is no reason to believe, however, that the Orokaiva *invariably* make a causal theory out of an empirical correlation and they may even omit to do so where modern thought would applaud such a step. A person may 'know' as

20: Schwimmer E-5
(1966-1967) 1969
OJ23 Orokaiva OJ23

121 an empirical generalisation that sexual intercourse and conception often go together, and that the latter tends to follow upon the former, without proceeding from this 'basic fact' to the 'theory' that conception is caused by sexual intercourse.

This point has already emerged from the
114 debate between Leach, Spiro and Kaberry
171 when Kaberry showed evidence that the
tribes she studied 'had no idea of the true
842 relation between sexual intercourse and
conception' while she admitted that these
tribes know empirically that sex relations are
a necessary preliminary to pregnancy. She
made the valuable point that her informants'
empirical knowledge does not logically entail
a 'correct' theory of procreation. The
Orokaiva case again illustrates that such
empirical knowledge may serve as a building
block for a wide range of soundly constructed
though perhaps 'incorrect' causal theories.

Erik G. Schwimmer

University of Toronto

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[P.133-B]

OCEANIA

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SOCIAL CONSEQUENCES OF THE MOUNT LAMINGTON ERUPTION[1]

By Cyril S. Belshaw

THE eruption of Mount Lamington in the Northern Division of Papua in January, 1951, was accompanied by the immediate and total destruction of Government Station and Anglican Mission Station and the death of about 4,000 people. About 5,000 natives were evacuated from the blast perimeter to refugee camps at Oro Bay and Wairope; the Wairope camp was destroyed by floods a few days later and moved to Ilimo on the Kokoda Road. The villages of over 1,500 of the survivors were either destroyed or considered to be unsafe for habitation. In addition to these people those who had their gardens near the rivers which were fed from the Lamington slopes saw them destroyed by floods, while others on the Managalasi (southern) slopes of the volcano, not directly affected by blast, had gardens ruined by volcanic dust. This article is concerned principally with the survivors directly affected by the blast, that is those people living between Popondetta and Wairope who either had their homes and gardens destroyed or who are acting as hosts to such refugees, and who may be described as the Periho section of the Orokaiva people. 731 121

Such a sudden and devastating experience is a shock, not only to the physical and mental systems of the people who suffer it, but to the whole fabric of society. It will be many years before all the consequences can be clearly defined: in the meantime this article may serve as a tentative analysis and in some measure a historical record.

According to European eye-witnesses now in the area, the people were disturbed but not unduly frightened during the five days between the first signs of eruption and the devastating blast. The night before the blast, when the sky was darkened and tremors were felt, large numbers visited missionaries and government officers 823

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[1] This paper is based on a two weeks visit to the area during April and May, 1951. I wish to thank His Honour the Administrator of Papua and New Guinea for making the visit possible; also the re-settlement staff, all of whom were so generous with hospitality and information. [101]

[p. 241]

individual villagers. The houses were built on a standard pattern, not, as might be 657 thought, to act as warehouses or storehouses or as offices, but as eating places for the 474 co-operators. Long tables and benches were erected in them where meals were eaten on return from work. The whole movement seems to have been built upon faith—faith in God's assistance, and faith that, if certain procedures were adopted, certain results would follow.

Despite these very grave disadvantages, the future for native enterprise is not necessarily bad. "Co-operation" to these people does not necessarily mean co-operation in our sense. The word is used by them sometimes to mean nothing more than rice-production, sometimes to indicate the house built for the co-operators, sometimes simply meaning a better way of life. The Northern Division is remarkable [272] for the variety of agricultural experiment that has taken place over a number of years. There are native owned rubber and coffee plantations, excellent citrus fruit is grown, and a wide variety of introduced vegetables have been planted and marketed. It may turn out that co-operative finance and marketing is more useful than co-operative production and that rice is not the most suitable crop. The whole matter needs skilled agricultural investigation and much more discussion with the people. But there is no doubt that some form of native business activity is required. And despite the ravages of the volcano there is still a fund of ready cash available for initial capital outlay. The Mission holds several hundred pounds on behalf of co-operators, and there are several hundred more still held by co-operative officials in village boxes. In addition to this money already subscribed, the people still [454] have savings. I examined, for instance, thirteen savings bank books as a sample for the Hagenahambo-Timboki-Popota people. The money in these originated entirely from War Damage Compensation payments, and there was an average of £4 held in balance, in a range from £1 17s. to £8 1s. In addition the same people stated that they had money in boxes, with an average of just under £10, in a range from nil to £2 to £39. It is impossible to work out from this sample the money likely to be held in the whole area; but it does indicate that there is capital available for minor equipment.

The general desire for co-operation and community development which, in a 657 vague way, underlies the present aspirations of the people, raises numerous problems of a technical nature. Mass literacy, education in bookkeeping and technical trades, medical services, agricultural research and extension, all have their part to play, and political organizations have to be devised which are suitable instruments of control for these backward people. The role of anthropology in such a situation, which is 121 becoming more and more common in the Pacific, is not only one of research to delineate the starting line of change. We need to know a great deal more about the ways in which people react to such stimuli and the way in which adjustments are made within native society over periods of time. Knowledge of adjustments which come through migration would have been particularly valuable in the Lamington situation. There is a need to perfect techniques of interpreting the hopes of people

121 with limited horizons, so that they may be translated into realistic programmes given available resources. Applied anthropologists should be able to tell when administrators are pressing too hard, or, conversely, not giving enough lead; and what stresses and strains are likely to result when this is the case. To a certain extent this can be done quite rapidly by systematizing the enquiry and concentrating on critical points such as violence or non-violence in family relations, adequacy of resources, and a genealogical approach to land tenure and inheritance. But applied anthropology must attempt to go further than pointing to critical phases of an already-evolving policy. It should be able to evolve a theory which would enable the administrator to avoid or at least adequately reduce crises before they occur; in other words to predict. The existence of numerous variables may be a valid excuse for not achieving perfect accuracy; but the time has come to write our theory in terms of social change, and in such a way that it can be tested in administrative practice, which is anthropological experiment.

NOTE

[773] The following legend, recorded in a Patrol Report by Mr. Atkinson in 1948, is not without interest:

> Long ago a man, a woman and a dog went up into the area which was then flat land with no hills. The man wished to have intercourse with the woman and she consented, thereby doing wrong. They did not return to the village but lived in the area. The people did not see them again but periodically used to ask how they were by shouting into the bush. First they learnt the dog had died, then the man (the man's spirit told them the last fact). The hills appeared and it was always cold and wet on top. It is not good for people to go into the area.

CYRIL S. BELSHAW.

PREFACE

●121 The following report presents data designed to be used in
"A Comparative Study of Cultural Change and Stability in Displaced
Communities," a project directed by H. G. Barnett. The report
follows closely a list of topics specified as variables in the
study. In a preliminary statement on the project, Professor
Barnett (n.d.) states the reasons why the Orokaiva, living on the
[731] slopes of Mount Lamington, were included in the project. In 1951,
Mount Lamington erupted, some 4,000 people were killed, and the
survivors were resettled under close governmental supervision.
This resettlement, as a consequence of a natural disaster, makes
the Orokaiva case comparable to the other 11 cases included in
Professor Barnett's study. The focus of our attention must
therefore be the social and other cultural consequences of this
government-sponsored resettlement.

731 I should at once note certain differences between this
Orokaiva case and most of the others included in the study. Mount
101 Lamington forms the centre of a rather populous district which is
[133] segmented into very small units socially and politically, but
which forms a definite unity in cultural respects. (See Map I.)
[361] Differences in language, social structure, political and economic
organisation and material culture, in a wide area North of Mount
Lamington, and included in the Popondetta, Sohe Popondetta and
Saiho divisions of the Northern District, are so small as to be
almost insignificant. Only one of the refugee camps established
immediately after the eruption was outside this culture area, and
its occupants were shifted back to the Orokaiva district within a
few weeks. From that point onwards, people were no longer separated
from their culture but only from their land. As resettlement
proceeded, even separation from traditional land holdings was soon
terminated, so that the typical "resettled" village, though in a
different spot from the pre-eruption village, still had access to
the same land holdings.

121 In these circumstances, many of the traumatic experiences
which are the subject of the other case studies in this project are
731 not replicated in the Orokaiva case. There is no question, however,
about the serious social consequences both of the eruption and of
the large-scale government intervention that followed. To trace
these consequences at the present time is no easy task. As all
the Orokaiva returned to their own land a number of years ago, a
great part of this report is an historical reconstruction and the
Orokaiva are neither devoted nor accurate historians. Most
happenings are covered over in their memory just as the jungle
rapidly covers over past cultivations and past settlements. Some
songs, some myths, and the harrowing personal experiences remain.

731 For survivors from the settlements actually destroyed by the
121 eruption, the loss of many relatives remains a cataclysmic memory,
feelingly recounted. But the fine points of organisation of the
resettlement camps are very much harder to recover.

In this preface, my main purpose is to explain my research
648 procedure. I should also, however, mention one or two general
facts as a background to my report. The British Protectorate of
New Guinea was proclaimed in 1884; the Territory of British New
Guinea was placed under the authority of the Commonwealth of
Australia in 1902. The effective conquest and pacification of the
Northern District in which the Orokaiva live, occurred between
1894 and, say, 1906. It was to some extent speeded up by the
presence of some gold miners who had to be protected and the road
from Buna to Kokoda was built towards the end of that period.
[799] After the first world war, Europeans set up rubber plantations on
a small scale; the Anglican Mission became established, especially
along the coast. The process of pacification was a somewhat
bloodthirsty event. If the Orokaiva are asked to state when they
discovered what they call the "new day," i.e. modern civilisation,
they refer neither to this conquest, nor to the events following
the eruption, but rather to the second world war and its aftermath.

648 The Japanese conquered most of the Northern District in
1942 and were driven back, in the beginning of 1943, by the
177 combined Australian and American forces which crossed the Owen
Stanley range and defeated the Japanese along the Kokoda trail.
Some Orokaiva collaborated with the Japanese and killed or betrayed
Europeans who were left behind in the district. When the allied
forces came, the Orokaiva were able for the first time to establish
really comradely relations with white men who, moreover, were
generous with gifts and left behind much valuable equipment. The
returning Australian government developed a new colonial policy
after the war eliminating the old use of compulsion and corporal
punishment while the Anglican Mission and later the government did
much to improve educational facilities. Access to trade goods on
a major scale began about that time. Training in the handling of
cash crops, notably coffee, also dates back to the immediate post-war
period. The eruption, which occurred in 1951, certainly had
significant social consequences, but it is not easy to keep these
consequences, i.e., the modernisation that can be directly ascribed
to government measures arising out of the eruption, distinct from
the policy of social development that was being followed at this
time throughout the district.

With regard to the eruption, we must distinguish three
731 types of effect: first, a part of the district, notably that
occupied by the Sangara tribe, felt the direct blast and suffered
very heavy casualties, while all survivors were evacuated; secondly,
a part of the district, occupied by several tribes, was endangered

73| by the eruption though casualties were comparatively light and was also evacuated, though opened up again shortly afterwards; thirdly, a part of the district was not evacuated at all. Some villages in this last-mentioned part of the district became hosts of evacuated groups.

121| In the present study, as in all others included in the project, two villages were chosen for special study, one that belonged to the evacuated category and one other. Furthermore, both these villages were studied at two points of time, namely the time of the eruption and the time of the field study. In order to keep to this specification, it seemed less expedient to choose as the village for special study one of those which had been depopulated by the blast. The survivors of such villages were brought together into much larger villages which still exist today and which form an interesting subject for study but reconstruction of the pre-eruption situation is virtually impossible. Often the few survivors that can be found were very young when they managed to escape and it was precisely the maturer people who almost always died. The site itself has mostly disappeared.

The evacuated village chosen for special study is therefore one where few deaths occurred due to the eruption and where the period of enforced absence was short. The disadvantage of this choice was obvious: the effect of the eruption was comparatively mild; the difference between the resettled village and the pre-eruption village was comparatively small. As against this, there were two considerations: the most traumatic experience for the depopulated villages was, of course, the loss of so many friends and relatives. Here the effect of depopulation was, from every viewpoint, far more severe than the effect of relocation. It would have been almost impossible to keep the focus of the study from shifting away from the variables chosen for comparison. Furthermore, Sivepe, the village chosen for study, had been the subject of a number of previous investigations by the New Guinea Research Unit of the Australian National University, so that useful supplementary data were to hand.

As the control community, I chose Inonda, which had similarly been a sample village where the New Guinea Research Unit had collected data. This village belonged to the category that had never been evacuated, but had played host to a village of evacuees, Sewa, which has close consanguineal links with Inonda. One might argue that a better choice of a "control community" would be one lacking all links with the eruption, but such a village would have been hard to find close to the mountain. I feel sure, in any case, that the presence of the Sewa people after the eruption did not affect the variables in which this study is interested.

While the material on Sivepe and Inonda fulfills the formal requirements of this study, I felt I should present a somewhat

121 broader view of the social consequences of the eruption, and
therefore included a third village, Hohorita, which lies at the
centre of the area most deeply affected by the calamity. Sivepe,
lying West of the volcano, escaped the full blast of the explosion;
Inonda, to the East, was not directly affected at all, but Hohorita
is a village made up of the survivors from Sangara villages situated
in the blast area. Hohorita, as well as Kiorota which I visited
briefly, has a far larger population than Orokaiva villages normally
contain; these people were brought together, as a result of
government organisation immediately after the eruption, from more
than a dozen of the destroyed villages, comprise more than a dozen
clans and constitute a new type of residential unit the origin of
which may be directly traced to the eruption. Both Hohorita and
Kiorota are situated on land owned by one of the constituent clans.
With over 400 inhabitants, they face serious problems of factionalism.
The government, which had an active hand in fostering them, had hoped
they would solve basic problems of Orokaiva social fragmentation.
In fact, one may almost say that the large consolidated village was
a principal aim of government planning for the persons displaced
by the eruption. Hence, it seems necessary to include consideration
of this residential form in the present study.

101 Of the 12 months spent in the Territory of Papua, my wife
and I lived in Orokaiva villages for more than 10 months, dividing
the rest of the time between Port Moresby and the administrative
centre of Popondetta. Most of the field period was spent in Sivepe,
[122] with three weeks in Inonda and five weeks in Hohorita. In Inonda
we made use of a house previously used by the New Guinea Research
Unit; in Sivepe a village house was built for us while at Hohorita
we were squatting in an uncompleted village house--an unsatisfactory
arrangement which accounts, in part, for the brevity of our stay.
[114] Fortunately, we had extremely competent research assistance at
Hohorita, after we stopped residing there. The head teacher, Mr.
[124] Harold Heru, prepared extremely good genealogical records, showing
residence of matrilateral and affinal kin as well as clan structure
and residence.

123 The basic source of the material that follows are my own
field notes. These are supplemented by government records, the
127 publications on the Orokaiva and the eruption published by F. E.
Williams, Rasy, Belshaw, Keesing, Crocombe, Hogbin, Rimoldi,
Waddell. I also collected tape recordings containing 50 basic
126 documents in the Orokaiva language; transcriptions in Orokaiva
and translations into English are available. A number of Europeans
115 who were concerned with the administration of the temporary refugee
camps were interviewed, including Dr. Gunther, Mr. F. Kaad, Mr. C.
127 Searle, Mr. R. Hart and others too numerous to mention. Miss
Nancy White, a mission teacher at Hohorita, apart from giving other
help, put at my disposal a valuable collection of her diary notes,
important letters written to her and Orokaiva texts collected at
the Sasembata mission school in the years 1952 - 1953.

Section 3: The Day of the Eruption

121 As the eruption itself is the central event of this entire report, I shall dwell upon it in some detail. I shall discuss it 128 from five vantage points: the vulcanologist's, the experience of the Sangara people, the Sivepe and the Inonda people, and finally the action of the administration. 133 The vulcanological aspects have been fully dealt with in G. A. M. Taylor's book, The 1951 Eruption of Mount Lamington, Papua (1958). 731 Taylor writes: "At 1040 hours on Sunday, 21 January, 1951, a paroxysmal explosion burst from the crater and produced a nuée ardente which completely devastated a surrounding area of 68 square miles." This explosion had a marked resemblance to that of Mount Pelée at St. Pierre on Martinique in 1902, when 29,000 people perished in a few minutes. The effect of the Peléan type of explosion is very different from the more usual one which is called "Vulcanian," and which occurred, for instance, at the famous eruption of Vesuvius described by Pliny. One may compare it, rather, with the effect of an atomic bomb; the lethal effect of the nuée ardente seemed to be due mainly to sudden damage to the respiratory system caused by inhaling hot dust. Almost 4,000 people were killed. Destruction in the inner zone of devastation was almost complete: the rain forest on the slopes was flattened and in some places the earth was swept bare, not even stumps remaining as evidence of the previous forest cover. At Higaturu, six miles from the crater, only one house remained reasonably intact; most of the buildings on the government station were carried away. Of the people who lived in this inner zone of devastation scarcely a single one remained alive.

Taylor classified a further 2[illegible] square miles as "partially devastated," "a thin heated strip which bordered the abrupt edge of the zone of complete destruction." The survivors who saved themselves by running away from the blast all came from villages in this marginal area. The line of demarcation was rather precise; everyone from the Sangara mission station was killed, and this station lay just inside the borderline of the area of complete devastation. The people of Isivita, just outside the border of partial destruction, were mostly saved. The people now inhabiting Hohorita came from villages such as Tunana, Seamu, Sebundeturu, all of which lie in the area of partial devastation. From the village of Sombo, on the boundary of the area of complete devastation, one man escaped (Table 1).^A

I interviewed members of 15 Hohorita households about their 731 experiences during the day of the eruption. [124] Some of them escaped because they happened to have gone hunting, or were visiting their mother's relatives; one man who had gone to the Sangara church that morning was saved because he had gone home to Ambogo immediately

A [See Cat. 116, p. 205--Analyst]

731 during the night. It did not, however, become a rallying point for resettlement organisation. It was too close to the mountain. Half an hour after the eruption, crowds of Orokaiva carrying pigs, dogs and babies, were already rushing past Awala Station westwards along the road to Kokoda. All these people from the Western slopes stopped at the Wasata Mission, a few miles past Awala, as they were reassured by the presence of a nucleus of Australian organisation. The Sivepe people and others who came from a relatively greater distance, stayed at Awala the night of January 21 and some reached Wasata the next day.

Along the Eastern side of the Mountain, among the settlements along the road to Oro Bay, there was no acute danger, but there was fear. Inonda, which was chosen as the control community, was never "resettled" in the sense that its people at any time left their village lands. When they saw the ash and smoke they did, however, consider themselves in danger because of the anger of Sumbiripa. Perhaps in response to police messages, perhaps spontaneously (Inonda informants say the latter) they shifted to the Inonda air strip, which was about a mile along the road in the direction of the coast and there waited for the white man to arrive. Meanwhile, the people of Seva, a related village close to (but well without) the line of partial destruction as shown by Taylor, evacuated their village and joined their relatives at Inonda. This was a more orderly evacuation than most, because the Papuan deacon (who lives at Inonda today and whom I interviewed) had somewhat varied the District Commissioner's message when he delivered it in church on that fatal morning. Though he followed his instructions by advising the adults to remain at Seva, he also said that they had better send their children to Inonda. Thus, when the mountain erupted some time after the service, the children had already gone. Upon arrival at Inonda, the Seva people joined their hosts and camped by the airstrip.

Section 4: The Beginning of Administrative Action

If it had not been for the influence of European administration, this flight from the mountain would probably have been followed by a fairly early return. Administrative measure, at first aimed purely at the relief of distress, soon began to include measures to restrain the fugitives from returning. These measures followed vulcanological predictions, this time based on sound scientific investigation, concerning the likely future behaviour of the
121 mountain. In considering administrative action, there are four
128 aspects to be distinguished: first, the investigation as to the nature of the disaster; secondly, the organisation of food and medical supplies and other immediate relief measure; thirdly, a

121 vulcanological study to guide future policy and fourthly, the
planning of longer-term resettlement, with which this report is
128 principally concerned.

During the first day, communication was a difficult problem.
731 A plane sent to Popondetta on the day of the eruption could not land. All official radio communication channels in or near the devastation area were broken down. The government in Port Moresby was informed about the disaster by radio through a private transmitter owned by Mr. Searle and operated from Awala. In the afternoon a car containing an agricultural officer and a technician from the Anglican Mission (Mr. R. Hart) traveled from Popondetta to investigate the situation. This car, after making inquiries at Sangara Station, reached Awala and reported to the government. In the evening there was a second eruption, this time without a nuéeardente but noisier than the morning eruption, the fall of ash was heavier and much larger stones were ejected over a larger distance. The fall of ash was heavy enough to warrant the closing of the aerodrome at Port Moresby, some 140 miles away, on the following morning due to limited visibility. Searle has to stop transmitting messages from Awala as too many stones were falling and an electrical disturbance made transmission impossible. He shifted to Waseta which then became the centre of organised activity on the Western side of the mountain.

On Monday 22 January, the full resources of the administration were directed at rescue work. The Administrator, Col. J. K. Murray, and the Director of Health, Dr. J. Gunther arrived at Popondetta. Mr. Fred Kaad, an officer of the Department of District Administration (now Head of the Australian School of Pacific Administration, Sydney, where I interviewed him) was seconded from Lae to head an organisation to help the fugitives. On the Monday, he reached Popondetta and paid a brief visit to Inonda airstrip. The vulcanologist, G. A. M. Taylor, arrived the same day and began to observe the mountain which he continued to do for two years, being present for all the main active phases of the post-climactic period. At Waseta, the immediate food shortage was relieved from Mr. Searle's stores, but soon food, medicines and blankets began to be air-dropped. At Inonda, an expedition was organised to find missing people from Seva; some Seva people who had been wounded by the eruption were flown to Popondetta for treatment. Mr. W. Schleusner, from Sangara Estate, visited Higaturu and reported the devastation; he counted 200 dead. A district office was set up at Popondetta, to replace the destroyed office at Higaturu; from this office it was decided, on the same day, that refugee camps were to be established at Cape Killerton, for the Sangara survivors and all others from the Eastern and Northern side of the mountain, while the people from the West, now mostly gathered at Waseta, were to be encamped at Wairope, by the side of the Kumusi River.

731 The vulcanologist, from the facts already at his disposal, was able to warn the administration that a prolonged phase of violent explosive activity was to be expected. This is characteristic of Peléan eruptions: at Mont Pélée paroxyencl activity lasted for four months and St. Vincent produced powerful explosions ten months after its initial activity. Hence, the refugees would be in danger were they to return to their villages. A generous area was therefore at once tentatively marked off as uninhabitable; this stretched from Inonda, Higarata to Mongi to Agenahambo, to the Kumusi and in a wide circle round the rest of the mountain. Special permission was needed to enter this restricted area; thus, the refugees would be forbidden, by regulation, to return to their homes.

This policy lies at the core of the entire resettlement scheme: the inhabitants, first of the camps, later of the resettlement villages, never exercised a free choice of residence but were kept by a benevolent government from returning to places where they [628] might come to further harm. Clearly, no other course was open to the Australian government: in its own eyes and in the eyes of the world it was responsible for the well-being of the Orokaiva survivors; the continuing danger of the volcano was a scientific fact of which the Orokaiva could not possibly be aware nor could they be expected to believe it; there were at that time no forms of political organisation such that Orokaiva leaders could have taken decisions on residence that would have been binding upon the people and such that the Australian government could have systematically approached and consulted them. The decision to relocate, therefore, from the beginning rested solely upon the Australian government. No Orokaiva participated in the discussions, held on 22 January, during which the policy was laid down. As a result of the discussions, officers went to the Sangara Estate, to Waseta, and to other centres of the affected population and transmitted the Administrator's instructions. If arguments were needed, they were clear enough and extremely cogent: the government expected further trouble at the mountain.

Section 5: The Decision to Relocate

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657 Under this heading there are three aspects to consider: the participants, the procedure and attitudes towards the necessity of relocation. In the previous section I have made it clear that only the administration participated in the decision-taking process; this was in line with the then existing governmental structure. The local government councils which today might conceivably be involved in discussions did not yet exist in 1951. The only existing

CHAPTER 2: Physical Environments

Section 1: General Remarks

131 I have shown in the last chapter that the surviving victims of the Mount Lamington disaster were resettled on land they owned (or close to land they owned) prior to the eruption. Thus, resettlement did not lead to a lasting change in physical environment. Certainly, upon their return, the people found their houses beyond repair due to damage done by stones and other volcanic materials; the village grounds were gutted with holes and some trees destroyed. It did not take them longer than a year, however, to build a new village. After the first year, they no longer needed government supplies for subsistence; they were able to plant out their own taro seedlings and re-establish their traditional crops.
[121] Nonetheless, certain minor changes in topography and resources occurred at Sivepe, and these must be briefly mentioned.

It will also be necessary to refer to differences in physical
121 environment as between the community chosen for special study (Sivepe) and the control community (Inonda). It would undoubtedly have improved my research design if the physical environment in the two villages could have been more or less identical. I should therefore explain why this flaw could not be avoided. Ecologically, certain definite differences exist between land close to the volcano and land on the lowlying flats to the North and East: differences in soil composition, rainfall and population density, to mention only a few basic ones. Though these differences are overshadowed by near-identity in culture and language, they will inevitably intrude in a study as detailed as the present one. It would have been ideal if a control community could have been found which resembled Sivepe in ecology but which had not experienced resettlement. Such villages, however, did not exist, as all the Orokaiva on the slopes of the volcano were evacuated and underwent, in some form or other, the same kind of experiences as Sivepe. Hence, in the present chapter, a comparative study of the ecologies of Sivepe and Inonda must be undertaken.

There is a second question to which brief reference must be made here, namely the effect on physical environments of changes in land utilisation. Throughout this report we shall be comparing conditions at the time of the eruption and the present. In the intervening period, cash cropping has become established among the Orokaiva on a significant scale and other significant cultural changes have taken place. We should therefore inquire what effect

121 these changes have had on the physical environment, especially
topography and natural resources.

Section 2: Climate

132 The temperature varies between 70° and 90°F. throughout
the year, both in Sivepe and Inonda. The Inonda people think that
the nights at Sivepe (and on the mountain generally) are rather
cold and it is true that in Inonda night temperatures are noticeably
higher. The temperature also fluctuates slightly with the season,
being higher just before and during the wettest season, i.e., from
[821] September to February. The Orokaiva like the sun to shine strongly.
They think a strong sun heals the sick and they like working in
[789] the sun. One recurring theme in spells to improve the growth of
taro is that the sun should shine strongly. This puzzled me a
little at first, but students of swidden agriculture seem to be
agreed that the fertility of the gardens depends considerably upon
the dryness of the weather during the period when gardens are
cleared and the felled vegetation burnt. (See, for instance,
Geertz, 1966: 22-23.)

Rainfall varies considerably from place to place, month to
month and year to year. I have quoted some data, for Popondetta
and Awala, extending over a number of years. Inonda rainfall is
somewhat below that of Popondetta; Sivepe rainfall is significantly
higher than at Awala. Thus Inonda usually gets 80 to 90 inches of
rain per year while Sivepe gets at least 200 (Tables 3 and 4).
Europeans tend to divide the year into a "wet" and a "dry" season.
[821] This is not a very accurate division and Orokaiva do not use it.
It rains some days in every month and the notion of a dry season
can be arrived at only statistically; it will then be seen to fall
in June-August at Awala and Sivepe; in May-September at Popondetta
and Inonda. This dry period, for the Orokaiva, is the clearing
[241] and planting period par excellence. The Orokaiva know that the
best harvests occur if it rains little during this operation. They
may not be able to explain this by the fertility gained from the
ash (they think it is the sun that gives the fertility during
planting) but one does notice a certain sense of urgency at this time
of year to attend to clearing and planting.

132 In October the heaviest rains begin and this is the period
when crops grow fastest. Thus the crops planted during the dry
241 period are apt to develop particularly well while crops planted
earlier are able to mature. It is true that planting and harvesting
continue for most of the year but the rainfall variations do
influence the yield of taro planted at different seasons; hence
the Orokaiva do have a clear notion of optimal seasons for certain
operations. The dry period is the optimal planting period, while the
months preceding are the period of optimal harvest.

241 planting is already completed for when the old people see the 221 tauga leaves drop over the newly planted gardens they say that the taro will have good leaves; their virtue is said to come from the 824 tauga leaves that drop. The driest part of the year is now at hand and few taro shoots suitable for planting are developing; hence, the best planting time is past.

[132] 6. The flowering of the tauga announces the beginning of the rainy season. This falls around the beginning of October.

7. At about Christmas, immature tauga nuts begin to fall from [789] the trees. This is the beginning of the time of shortage and also the occasion of some further garden magic to encourage the swelling of the main taro crop. Some minor feasts occur around this time. People then begin to look forward to the time the garepa will flower again.

We may compare this with Waddell's statistical data, which 241 compares man-weeks spent on all types of activities in Sivepe over the periods 3 February-3 May, 1964; 20 July-6 September, 1964; and 9 November, 1964-3 January, 1965. His figures do not rally particularly closely with the idealogical pattern set out by informants and he explains this by an untypical rainfall pattern in 1964; it was unusually dry.

Rainfall fluctuations have a profound effect on the yield of the main crop taro. Because of the porosity of the ground, very heavy rainfall is needed to ensure a good harvest. Feasts can be held only in years when the rainfall has been good and the harvest accordingly abundant. In other years people are close to starvation level in the months before the harvest. It is then they rely on supplementary crops such as sago.

In recent years, two further calendars have become superimposed 805 upon the traditional one: that of the Christian festivals and that [434] of the European economy, notably monthly coffee sales from June to [651] December and the payment of Local Government Council tax supposedly in September.

Section 3: Topography

In this section I shall specifically describe the differences [illegible]121 in topography between Sivepe and Inonda, but this description will illustrate at the same time the fundamental differences between the ecological base of Orokaiva mountain settlements such as are found on the slopes of Mount Lamington and of the plains settlements found North and East of the mountain. I have drawn my data from a regional land and soil survey done by the Commonwealth Scientific and Industrial Research Organisation in 1954, as well as from remarks of Crocombe and Hogbin (1963) and Rimoldi (1966).

CHAPTER III: Social Environment

Section 1: Opportunity for Contact with Outsiders

The experience of the eruption led to outside contacts that
731 would not otherwise have occurred. These outside contacts obviously
177 were among the basic causes of social changes arising out of the
eruption. In the present study, it is by no means easy to
distinguish between outside contacts which arose out of the eruption,
directly or indirectly, and those which existed prior to the
eruption or were the result of social changes unconnected with the
121 eruption. But before we can address ourselves to this substantive
question, it must first be clear what we shall mean by "outside
contacts." The term "outsiders" is used repeatedly in Professor
Barnett's specification of the variables to be included in the
comparative study. What, exactly, are outsiders? In order to
answer this question, I have to offer a few generalizations about
Orokaiva social structure for which the documentation cannot be
included here. A full treatment is given in my doctoral dissertation.

We may view the Orokaiva picture of his social universe as
571 a set of widening concentric circles: family, local clan group,
village, the clan within limits of kinship recognition, the
consanguineal group within limits of kinship recognition, a group
of contiguous friendly villages, the wider set of persons with
which an individual entertains institutionalized friendship links,
while beyond these limits we may discern even wider circles which
become evident in special circumstances. This is an entirely
619 ego-centred model. I saw no evidence of groups of villages which
displayed a true corporate unity. Thus village A would have close
628 relations with villages B and C, but village B would not have
similarly close bonds with A and C. More likely, villages B and
C would treat each other with marked reserve and B would have close
relations with A and D; C would have close relations with A and E.

571 Patrilineages were very shallow in genealogical depth.
Though the kinship structure would need to be classified as
613 predominantly patrilineal, I noted a strong consanguineal emphasis.
591 Bonds based on real or fictional siblingship, affinity, matrilineality,
institutionalized friendship and--above all--residence and an
uninterrupted flow of reciprocal transactions were stronger than
all but the closest patrilineal bonds. Though residence was
predominantly patri-virilocal, there were many non-agnates in
local groups sharing the same clan name; inheritance was not
necessarily in the patriline.

571 The social universe of the different families diverged markedly from one another; the small number of extended families composing a minor patrilineage (marked by the possession of a common plant emblem) would share each other's social network and obligations to a large extent, but the same could not even be said for clansmen of different plant emblem groups. In such a culture, the term "outsider" must be situationally defined. For certain situations, only those who share a clan emblem are insiders; for other situations, only clansmen; for others, only residents of the same village, while I can also think of situations where the group of "insiders" embraces a much larger group. We may list the following set of widening concentric circles, as useful for the present study:

(a) Closely allied villages (especially Sivepe, Garombi, Binduta)

(b) The Sasembata district: defined as comprising Sasembata parish or the three Sasembata local government council wards. This is an area close to the road from Kendata to Boru, and never more than an hour's walking distance away from it.

(c) The wider solidarity group to which Williams and several other earlier authors have referred as the "Waseta tribe" (see map)

(d) The indigenous population of Ilimo camp

(e) The "Orokaiva" people

(f) Papuans and New Guineas other than Orokaiva, without special administrative roles

(g) Papuans and New Guineas with offices in the administration, and the Church

(h) Chinese traders

(i) Persons referred to as "taupa" (white men)

(k) The Americans (a special, and by this time somewhat mythical category)

(l) White men believed to be dead ancestors who have returned

For the purpose of this study, I have avoided systematic reference to social structure and emphasized residence rather than kinship. The Inonda pattern resembles, in general, that of Sivepe, except that the sparseness of the population makes the immediate [628] social environment somewhat simpler. Sivepe has significant relations of one sort or another with dozens of villages; Inonda's social universe hardly comprises more than half a dozen, and small ones at that. On the maps Inonda is shown as part of the Sausha "tribe," but Crocombe and Hogbin treat Sausha as simply another clan in the vicinity and it is likely that the larger military grouping of which they formed part were Monckton's dreaded Dobodura.

121 It is our task to consider changes in the patterns of contact with each of these 11 categories of outsiders (as between

121 January, 1951 and 1967), both in Sivepe and Inonda. In our treatment of the patterns of contact, we need to consider the following variables specified in the Barnett memorandum (1-C #1,2,3,4,5,6,7): role and status of persons involved in transactions, the occasions of contacts and transactions, their purpose, frequency, degree of formality, degree of affectivity, the fiduciary element present in the transactions, their locations; we have to specify how comprehensive the exchanges were (did they involve affinity, friendship?), who were the initiators and what view each of the partners in these exchanges took of the other. In dealing with every one of the categories of outsiders we must, in addition, inquire whether these categories are actually homogeneous; it will often be found that we have to differentiate within the categories. For instance, we have to look whether the Orokaiva distinguish between the different roles, statuses and ethnic origins of persons belonging to the category "taupa." The most convenient way of presenting these data will be by taking each of the 11 categories in turn, dealing with all the variables that seem appropriate to that category.

Section 2: Contacts with Closely Allied Villages

628 The concept of a "closely allied" village is a difficult
one: it is not often, in these days of peace, that a village
[621] really acts as a corporate unit, so that contacts between villages
tend to be, in actual fact, contacts between individuals in these
[571] villages who are linked by agnatic, consanguineal, affinal or
friendship ties. Out of such ties, inter-village contacts may
arise. For instance one village may give a feast for another
village and here the unit invited is definitely very often the
village; or one village may come to the aid of another after there
has been a death and bring food to all members of the bereaved
[764] village. The most significant inter-village contacts--those which
would occur in time of war when one village went to the aid of
another--could no longer be observed, but the ritual immediately
after a death resembled that customary when a village was attacked
by an enemy. The conch-shell was blown and the closely allied
villages would come to the aid of the bereaved one. Hardly anyone
would stay behind, if the death was in a really closely allied
village. Thus hardly anyone was left in Hohorita, with 400
inhabitants, when an old man died at Sombou which was a closely
allied village. On the other hand, if the link between two villages
is slightly less close, only those families with kinship or friendship
connections will go to the bereaved village. In order to be "closely
allied" in the sense just suggested, a village should be geographically
close (not much more than a mile away, in the cases of Sivepe, Inonda,

628 guests, it appears that they were friendly but rather formal. As
574 will be shown later, all arrangements in connection with Ilimo
camp were made between the government and the Ilimo people; the
731 Orokaiva had no forms of organisation, in 1951, through which the
refugees could have negotiated directly with Ilimo. The hosts
[657] generously supplied food, grew extra food in special plots,
provided abundant building material from their land, and a site
for the camp and helped with the preparation of the camp while
the evacuees still lived at Wairope, in return for which the
government made various gifts which Ilimo evidently regarded as
adequate payment. At no point, during the existence of the camp,
did the refugees develop an organisation which dealt directly with
the Ilimo people. Thus, the only contact between hosts and guests
was on a social level.

The camp was built at some little distance from the village. Refugees who had friends and relations in Ilimo used to go over to the village and visit them. There was for instance, at the time of the eruption, one Sivepe man resident at Ilimo; thus some Sivepe people paid visits to the village. There was an Easter celebration at the camp to which the village people came. When the camp broke up, the government gave a feast to the Ilimo people, on behalf of the evacuees, in the usual Orokaiva style.

121 If we wish to answer the question to what extent contact
between different "tribal" groups (or distant groups) of Orokaiva
has become more intensive since the eruption, we cannot confine
ourselves to contacts occurring in villages such as Sivepe or
Ilimo. Here the pattern suggested in the previous pages has hardly
[178] changed. The changes have occurred by the development of new
organisations (to which I shall refer later) through labour migration
and through urban development.

As I am at present discussing only unorganised contacts
464 between villagers, I can give only one clear instance of changing
166 attitudes and this is in Popondetta itself. Popondetta, the new
administrative centre of the Northern District, has about 4,000
633 inhabitants, almost all Orokaiva; among its inhabitants all parts
of the Northern District are represented, including Sivepe. The
[162] Sivepe people had many relatives there, mostly hailing from the
Sasembata district, and employed in some regular job in the town.
These jobs are partly in personal service to Europeans, but also
in light industry, the retail trade, public works and public service,
and go far beyond the little employment that was available in pre-eruption Higaturu (with a population which, judging from aerial
photographs, can hardly have exceeded that of a large village).
484 Popondetta is preeminently the place where intelligent men from
various villages can gather informally to discuss political and other
521 public questions, and develop a wider interpretation of the situation
633 of the Orokaiva which is learnt by the men from the villages when
they pay occasional visits to Popondetta. The town generates a new

177 fraternised with them. In fact, the friendly atmosphere created by
both the American and Australian troops during the war gave the Orokaiva
829 a different view of Europeans than they had before and must have
769 greatly assisted the acceptance of the economic development ideology
and local government council movement in the 1950's and 1960's. A
[415] great proportion of the cooking pots, adzes and other steel tools
found in the villages today were gifts from the Americans.

769 In all the villages I visited, people listened to the news
829 broadcasts in Motu and Pidgin English; hence they heard about the
Vietnam war and we discussed it a few times. The reaction was strange:
[207] it was a great pity that those American boys were being killed in
Vietnam, because they were wonderful people. There was distinct
[191] disappointment that the Americans had decided to go to Vietnam instead
of returning to Papua-New Guinea. Some jealousy was felt towards the
Vietnamese who had now been thus favoured. I tried to assuage the
disappointment felt by my informants by summarising some facts from the
Manchester Guardian Weekly, my only source of knowledge at the time,
but I could see that the convictions of the Orokaiva on this point were
unshakable; they knew some things about the Americans which I was (or
pretended to be) ignorant of.

Section 10: Self-Group Image

829 The self-group image of the Orokaiva has undergone a profound
change since the war. The question that we need to investigate here is
[178] the extent to which the eruption experience affected this long-term
change. The most useful procedure will therefore be, as in Section 8,
121 to set out first the present self-group image and its general development
over the last few decades; secondly, to place the data we have on the
128 period immediately following the disaster in the framework of this
general development.

829 Like other peoples I have personally studied (the New Zealand
Maori and the Canadian Indian), the Orokaiva have been the recipients
of a barrage of propaganda on the part of missionaries and government
officials, who were critical of Orokaiva material standards, social
customs and religious beliefs. They also supplied severe sanctions
against those who did not change their material standards and customs
while considerable inducements were held out to those who would. The
Maori and the Blood Indians, while complying on the whole with the
demands of the whites, at the same time retained a strong belief in
the greatness and, often also, the superiority of their old customs.
I was therefore surprised that the Orokaiva had nothing good to say
about their own past, representing it as a nightmare from which they
were glad to have escaped, while the teachings of the Europeans as
well as their goods, provided an opportunity--the only known opportunity--
for vast improvement.

191 experiences. The problem remains how ideas bearing on social and
economic development can be systematically communicated. When I
[871] asked Orokaiva people what language they thought ought to be made
official after independence is granted, English was hardly ever
suggested. Some said Motu, others Pidgin. I was impressed, however,
with the meticulous care the Orokaiva bestow upon their own vernacular.
212 Most of my informants could help me to get Orokaiva texts spelled
correctly (and their advice hardly ever conflicted); they were most
124 precise about correcting my grammar and would laugh irrepressibly when
a man made a grammatical slip in a speech recorded on tape--this was
a joke for days. I would therefore agree with Wurm that a language
121 such as Orokaiva (spoken by at least 25,000) should be used for literacy
work and for elementary education.

Teachers are trained both in the mission and the government
797 system, but the mission system is primarily aimed at training in
875 Bible knowledge, religious doctrine and Christian values. In the early
years of the mission any promising pupil, with two or more years of
elementary schooling, might be chosen for training as a mission teacher.
Certainly he would get some coaching in how to teach school, but the
emphasis was above all religious. More recently, a number of courses
were set up by government and mission teachers were encouraged to enter
for such courses. The A course is open to men with a Standard 6
education and takes one year. The B course is open to men with a
Form 2 education and takes two years. The administration insists
on an A certificate as a minimum qualification; in the Northern
District, new appointees were usually expected to have a B certificate.
The mission is less fortunate; in 1966 in the Northern District, only
97 out of 274 mission teachers had either an A or a B certificate. Out
of the Sasembata staff of 12, five were trained; out of the Hohota
staff of four, one was trained.

The educational qualifications of the teachers are one more
875 reason why it is hard to teach with English as the language of instruction;
191 most of these teachers speak little English themselves. English is
their third-best language (next to vernacular and lingua franca)
and most of them, even if they come from other districts, will still
have more command of Orokaiva and Motu than of English. Many of those
at Sasembata came from the Coastal district so that their vernacular
was not Orokaiva, but a tongue closely akin to Orokaiva. Those who
meet their pupils outside school would not speak English to them
then, this being the least effective way they would have of communicating
with each other.

Teachers' salaries are a subject that has continued to puzzle
875 me. Government teachers are paid according to a scale the bottom of
465 which, in 1965, was $400 per annum. The mission pays $4 per month to
Papuan teachers and $12 per month to expatriate teachers. In addition
all mission teachers receive free housing, some gardening land to grow
taro, occasional distribution of fringe benefits, such as Christmas
gifts of used clothing from Australian supporters of the mission. In

PART II: INTERNAL INFLUENCES

CHAPTER I: Size and Distribution of Relocated Community

Section 1: Statement of the Problem

121 This report is intended to answer one general problem: what has been the effect of collective evacuation and resettlement upon one Orokaiva community (Sivepe) directly affected by the eruption of Mount Lamington. In order to establish this effect, we are studying Sivepe as well as a control community (Inonda) that was not evacuated and resettled. In the first part we have made one assumption which obviously can never be accepted without question and which, in fact, we shall find to be partly false: namely, that the two communities can be regarded as homogeneous. We have tended to speak of "Sivepe" and "Inonda" as though internal variability could be ignored. At the same time, I did stress at various points that I thought one of the differences between Sivepe and Inonda might be that in Sivepe acculturation had proceeded relatively homogeneously whereas in Inonda the range of variation was wider.

A hypothesis of this sort can be tested only by a systematic study of internal variation in the two communities. In this and the following chapters I shall introduce a number of classificatory principles, commonly used in social anthropology. After classifying individuals in Sivepe and Inonda by these principles, I shall be able to compare the two communities in respect of internal patterns. The first principle to be chosen is that of spatial arrangement. Closely associated with this are the principles by which the Orokaiva themselves view their communities as subdivided into bounded social groupings. My procedure will be, first, to state what are the Orokaiva principles of classification, which apply to both communities alike. Secondly, I shall set out how the two communities under consideration can be classified according to these principles and in what respects they exhibit similar or dissimilar patterns. Where patterns are dissimilar, an explanation for the differences will be attempted and I shall consider whether the post-eruption experiences may have been a factor.

Section 2: Spatial Arrangement

621
361 The Orokaiva concepts connoting residence units that may be found in a village are mainly three: da--village, bande--house and

CHAPTER II: Socio-Economic Factors

Section 1: Age, Sex and Marital Status

121 In this chapter, the study of internal variations will be
continued, by a consideration of the human resources available to the
villages and their economic productivity. A statistical analysis of
162 the population by age, sex and marital status (see Table 16)[A] shows that
464 the labour force lacks a proportionate number of young men in early
adulthood; the number of men in the vigour of life is somewhat smaller,
in Sivepe, than the number of women. The reason for this change is
166 that young men leave the village to earn money elsewhere. They often
167 do this before marriage, so that the bachelors' houses tend to be
occupied by a much smaller number than formerly; but after they are
464 married they usually do not at once settle down in the village. It is
583 unusual nowadays for a brideprice to be paid in full at the time of
the wedding. Usually this payment is delayed; the young husband goes
out to work for it and after one or two years he sends back money and
it is paid. At the one brideprice payment I observed in Sivepe, the
groom was not even present. He was at his job in Port Moresby and the
role of groom was taken over by another man from the same lineage--
a married man with six children, as it happened, who duly cut the
firewood and carried the water required for the entertainment of his
[489] affines. Even after the bridewealth is paid, then, the husband
continues to work at his job, rarely seeing his wife as travel is
expensive and leave infrequently granted.

593 Because of these infrequent visits, young wives have few
children, but they receive regular gifts of money from their husband.
592 Eventually, the husband returns home; it is hard to say just what
makes him decide. Before the age of 30 he usually starts to establish
a family, and he then stays home continuously, to look after his garden
[464] and his coffee. He may occasionally go back to town for a few months
to earn money, but judging by the few examples I saw, he is not always
successful at finding a job and even if he does so, he takes an early
opportunity or uses an early excuse, to return home, carrying home
some presents for his family and perhaps a little money. The family
does not seem to be too troubled about the loss of earnings that
result from his return. Some men manage to find accommodation for
their families in town, in which case they all migrate.

This generalised picture needs qualifying. There were six Sivepe women (out of nine married women with absent husbands) who received regular gifts; three of these women were living in the household of a single man while another family head had under his control two

[A] [See Cat. 116, pp. 221-222--Analyst]

CHAPTER VII: The Role of Mediators in Development

Section 1: Expatriates

I have referred, right through this report, to certain individuals 121 who seemed to play a key role in development. The study of these key 128 individuals can be adequately carried out only if there is some team work, preferably in the field, with the cooperation of a psychologist. My own approach in this chapter is wholly impressionistic and probably of little scientific utility. Nonetheless, the phenomenon of the mediator, who often appears in a crucial role in situations where values of a newly dominant culture are being transmitted to the newly dominated, is an important object of study in a sociologically oriented 177 analysis of culture change. In an earlier work (Schwimmer, 1956) I developed the thesis that between the two interacting cultures there stand a number of people whose position is best described as one of double opposition: they find themselves in opposition to their culture of origin and also, inevitably, to the strange culture they are seeking to influence and adapt, or to borrow from.

This thesis presented an oversimplified picture. An Australian expatriate, when in contact with Papuans, certainly, almost inevitably, sets up as a champion of his culture of origin and, consciously or unconsciously, pressures the Papuan to adopt it. On the other hand, my definition of the mediator also implied that this expatriate, in contact with his own people, sets up as a champion of Papuan culture. On the surface, this is very far off the mark. I have attended a number of expatriates' social gatherings and found that there was an almost compulsive tendency at these gatherings to devote the time to bemoaning the supposedly grave and irreparable faults in the Orokaiva character. If we are to cast these expatriates in the role of champions of Papuan culture, we are forced to go beyond the conscious level and thus trespass dangerously on the preserve of the psychologists.

177 One of the most fruitful sources for such an exercise (in this report I shall confine myself to the barest outline) is found in the 657 writings of C.A.W. Monckton, resident magistrate of the Northern District in the first decade of the present century. Though Australian administrators of today regard Monckton's methods with some horror, I would still regard him as, in a deeper sense, a prototype of the Territories administrator; he is more ruthless than those I met, but also more candid and more deeply involved in Papuan culture. He was extraordinarily influential: the Orokaiva fear of the white man, their unremitting vigilance when a white man comes close, the cat-like caution with which the white man is often evaded, can all be traced back to a

CHAPTER VIII: Factionalism

121 621 In the preceding chapters I have invoked a number of principles of classification with the aid of which I have divided the sample communities into a number of what are in the last resort arbitrary categories: religious categories (pagan-Christian), political categories (clans and lineages), ethnic categories (Orokaiva villagers and non-Orokaiva mission teachers), generational categories (age groups), accultural categories (which sometimes coincided with the other categories already mentioned in personnel). It became apparent that all these categories were to some extent socially significant: we found, for instance, that the Inonda pagans are distinguishable from the Inonda Christians by having different economic objectives, a different level of Western education, smaller access to economic resources (land, etc) while they also belong to different lineages from the Christians. We also found, however, that the line of religious division by no means coincides with a generational division, nor do pagans necessarily have less experience at work outside the community.

621 665 In Sivepe we found political membership groups (clans) which showed marked differences in certain accultural indices (work outside the community, knowledge of other languages, exogamy, etc.) but little difference in other, probably more crucial ones (land resources and cash cropping activities). We found ethnic differences between mission teachers and villagers to be mainly significant in the context of political and status rivalry between the station and the villages. At various points we found differences in customs as between generations, but we also found that at Sivepe, the category of male adults under 35 is almost absent; and also, that when these younger people do return to the villages, their elders are apt to imitate them in certain respects. They thus become channels of acculturation.

I should perhaps have added that in this respect, as in most others, the Orokaiva practise a subtle bargaining of customs. The younger men come back with money and assets which they find are soon distributed, under one pretext or another, among the less affluent villagers. They have to "help" when called upon; they have to respect the existing system of social obligations. This is a pattern the younger generation has never successfully challenged in Sivepe, though perhaps it was easier to challenge in Inonda, where there is a "big man" as
665 leader. Another classification, namely between male and female, should also perhaps be briefly considered as, under the impact of the
562 women's clubs, men and women could occasionally be seen to behave as political membership groups.

This political division between men and women was, of course, on a rather superficial level. It was not seen in Inonda at all, as

665 the women's club there was a concern of the acculturated faction and
arguments about it were on factional lines. But in Sivepe, it was
562 quite a novelty for the women to have a political cause of their own
(they had to inveigle the men into building them a clubhouse) and they
discussed the various ways in which they could exert pressure (refuse
to sleep with them, etc.). All this was on a rather unserious level,
although the secretary of the club, whose circumstances I have described,
depended rather heavily on the club for a secure status in her new
village. Later, when all the women were practising the *kere* every
night, the same tug of war re-established itself. Traditionally,
married women do not dance much or at all; some husbands grumbled
because the wives did not stay home in the evening, came home very
late, left them with the babies, made a "lot of noise." In all this,
there was a feeling that the status of women was rising--and the mission
encouraged this as well as the government. More important, the women
were acting as a group, under a leader, which may not have been common
at an earlier time.

To what extent can one speak, in these villages, of factionalism?
121 This term is used in a bewildering number of ways. Ralph Nicholas
has recently tried to clarify it by five nominal propositions:
according to him, factions are (1) conflict groups, (2) political
groups, (3) not corporate groups. Faction members are recruited
(4) by a leader and (5) on diverse principles. (1965: 27-29)
Nicholas stresses that factions, in his sense of the term, lack the
permanence of corporate groups, and that they may, in fact, arise in
just one conflict situation, to evaporate again soon after. Alternatively,
665 they may last for a very long time. I noticed a profound difference
between the working of factions among the New Zealand Maori and the
[171] Orokaiva. When a conflict situation arises among the Maori, including
any disagreement at all between two persons of different families,
familiar alignments at once reassert themselves. The lines of cleavage
tend to be predictable; furthermore, a large number of people are apt
to take sides along this predictable lines of division. Among the
[578] Orokaiva, each side tended to have only a small number of predictable
protagonists. The rest would remain indifferent, and if the conflict
became serious enough for them to participate, the alliances, at
least in Sivepe, were hardly ever repeated from one occasion to the
next. Factionalism in Sivepe was therefore, to a large extent,
fugitive.

There were, of course, disputes that would divide the whole
of a village along clan lines, or that would divide a larger body
of contestants along village lines. I would tend, with Nicholas, to
speak here of conflicts between corporate groups rather than factionalism.

Yet there are confusions here that still need to be cleared up.
What Nicholas calls a "corporate group" is corporate only in respect
of certain functions, even though these may be very diffuse, as in the
case of kinship groups. But if conflict occurs over matters arising

121 Much depends on the success of the policies now being advocated
by the government. If these are successful in raising living standards
and hold promise of yielding the wealth and power expected of them
(that is, a gradual increase of wealth and power), then the direction
of change observed since the war will continue to be followed. People
will then be willing to make ever more drastic modifications of old
ritual and finally, perhaps, the traditional conceptual system will
break down in favour of a different system. On the other hand,
Orokaiva are not unprepared if these promises remain unfulfilled and
if living standards should actually drop again, a possibility by no
means to be ruled out as the economic future of New Guinea export
products is very uncertain. In that case, millennial movements, relying
on traditional magical procedures, are an ever-open possibility.

177 At the present time, Orokaiva are not taking a defensive
position about their abandonment of old customs, as they regard this
a reasonable consequence of accepting the "new day." Nor do they
act defensively when they observe traditional custom. They reinterpret
such observance by means of the kind of ambiguities I have outlined.
[154] In fact I cannot conceive of any situation in which an Orokaiva will
behave defensively. I would not call their ambiguities rationalisations
either: when they use terms like "birthday party" or "practise,"
they are not rationalising their ceremonies as part of a new Christian
way of life but they are merely saying that these ceremonies are
capable of bearing a second meaning, in the context of a Christian
system. Upon further inquiry, the anthropologist finds that his
informants can explain the original system in much detail whereas a
concept such as that of a "birthday party" in the Western sense is
left in a total vacuum, as the day and even the year of birth of a
child is hardly noted.

Section 2: Controls Operating for and Against Continuance of Tradition

In an earlier chapter I described a ceremony for children
852 about to start their new school year. It was a kind of farewell feast,
177 which certainly made the children feel that they were off to an
important assignment to an alien world. But it also carried a second
kind of message: that the world of the school begins outside the
857 village boundaries. When the children came back to the village (which
was every night) they resumed their ordinary roles in the Orokaiva
177 scheme. The children felt no conflict of loyalties inside the village;
village life had been sufficiently adapted to remove glaring inconsistencies
between the rules of village and mission station. It was a little
124 different for my interpreter who had been to Martyr's School and who
therefore knew various Christian concepts unfamiliar to other villagers.
177 This made him feel a little superior when he talked to me; he would
tell me what "the others" believed, adding that he knew how matters

425 trespassing there. Bishop David recalled, in my interview with him,
how amazed the people were that the land was no longer theirs: "What
657 is this business of our land being _sold_? Our _fathers_ sold it; _we_
should be able to get it back." In spite of the Bishop's protests,
the people had to leave their new village. They then moved about two
[361] miles closer to the mountain and to the centre of their traditional
land holdings and chose the site of Hohorita. (The Irihambo village
used not only Crown land but also the land of a planter, Mr. C. E.
Searle, who tells me he never objected to the presence of the village.
The situation is illustrated on Map XIII.)A

The shift from Irihambo was a gradual process, during which
361 several groups set up new villages independently. Today, the population
657 of Irihambo is dispersed over six locations: first, two large villages,
one behind the other, which have now virtually fused into one and
together are known as Hohorita; immediately to the side of this, a
mission station, with a church built of bush materials, similar to the
one at Sasembata, but not of the superior standard achieved at Irihambo;
finally three smaller breakaway villages, called Sombou, Kakita and--
again--Irihambo. Though Hohorita people today are not ready to admit
it, they must have been very angry when they were told their Irihambo
land was to be occupied by white ex-servicemen. They pulled down the
beautiful church at Irihambo, much to the Bishop's chagrin.

Under the impact of the Higaturu Local Government Council,
Hohorita nonetheless gradually assumed the character of the other
modern resettlement villages; by June, 1967, the biggest of the breakaway
groups had joined the main village, which no longer looked like two
separate units but had been spatially integrated; the houses were
being aligned and modernised; in other more fundamental respects the
[177] Sangara people had become rather rapidly acculturated. By the criteria
used in the present study, acculturation had progressed rather more
rapidly than at Sivepe, though also more unevenly. In many respects,
[731] Hohorita had more difficult problems to surmount than Sivepe: the
death toll had left the tribe virtually leaderless; the resettlement
village was made up of the survivors of a dozen villages or more, which
made it rather heterogeneous; land titles were far more confused than
before the eruption; the establishment of an _esprit de corps_ required
the forgetting of deep traditional intervillage antagonisms; a deep
sense of insecurity had been caused, first by the disaster and the
deaths and later, probably, to some extent by the failure of settlement
at Irihambo.

It was the general hypothesis of this comparative study of ten
731 displaced communities in the Pacific that displacement would lead to
accelerated culture change in some directions. This hypothesis was
177 tested by using, in each case, a control community, similar to the
relocated community but lacking the experience of relocation. In the
[121] case analysed in the present report, the experience of displacement at
Sivepe was comparatively mild in that the people soon returned to their
traditional land holdings and formed a village identical in personnel

A[See Cat. 116, p. End Map 12--Analyst]

731 177 to the pre-eruption village. Furthermore, the control community differed in minor ways from Sivepe both in ecology and in traditional social structure. Certainly this report has pinpointed a number of differences in the acculturation history of Inonda and Sivepe; it has probably been rather less successful in determining whether these differences are due to the displacement experience (and subsequent government and mission initiatives) or to the ecological and cultural differences which existed between the two communities at the time of the eruption, and which were further accentuated when Popondetta became the administrative centre, thus placing Inonda appreciably closer to the centre than Sivepe.

121 I made a study of Hohorita because I felt it would perhaps provide more cogent evidence. Here resettlement followed a cataclysm during which over 90% of the population died; furthermore, the ecology and culture of Sangara was very close indeed to that of Sivepe. I was struck, during my study of Hohorita, by the evidence of far more rapid acculturational changes than I found at Sivepe. Hohorita, to put it briefly, produced more intellectuals and also more coffee than other communities that had been less afflicted. This seems to suggest I might have done better to take Sivepe and Hohorita as my sample communities, as I would have been able to show more striking differences in spite of greater ecological and cultural similarities. I rejected this idea because my study would then have been methodologically anomalous in the framework of the total project in which the nine other investigators had used a different research strategy.

Nonetheless, the study of Hohorita is of very special anthropological importance as it shows strikingly how a primitive community reacts and adjusts to a cataclysm. The fact that the presence of the Australian government and mission provided the community with some additional adjustment opportunities hardly detracts from the interest of the case. It is impossible to do justice to the subject in this epilogue. Not only would this take too much space, but the time pressure under which this report is compiled also makes it impossible. As Hohorita has a population of 348, the genealogies, lists of educational, occupational, residential data, the statistical evidence of the inter-village relationships are all most complex and will need to be analysed out of 650 pages of field notes. These notes are at present no more than lists of names related to individual families. All I can do here is to give my own preliminary impressions of the material, coupled with general descriptive data. Nonetheless, I hope that I can thus show some of my findings from Sivepe in a broader setting and draw attention to a few basic issues.

Appendix

121 Outline of variables influencing change and stability.

I. External influences

- A. Circumstances contributing to the decision to relocate.
    1. Initiating conditions--land shortage, volcanic eruption, drought, factionalism, isolation, economic depression (as in 1930's and post-war), etc.
    2. Source of suggestion to relocate--government, native leaders, example of other communities which have been relocated, etc.
    3. The decision to relocate.
        - a. The participants--total community, native council, individual families, etc.
        - b. The procedure--presentation of the argument for removal, advance inspection of new location, voting, emergency evacuation, etc.
        - c. Attitudes toward the necessity of relocating--differences, if any, between individuals or classes such as men, women, young, old, leaders, government officials, educated, prosperous, differences at time of removal and later, between early and later emigrants, etc.
- B. Physical environments
    1. Climate-effects of temperature, storms, seasonal fluctuations, etc. on clothing, housing, subsistence activities, outside contacts, etc.
    2. Topography--effects of size, relief, beach area, streams, water table, reefs, etc. on village ground plan, paths, roads, location of farm land, groves, internal communication, subsistence activities, etc.
    3. Resources--availability and exploitation of local products for food, construction or commercial purposes.
    4. Location with respect to other islands--effects on visiting, wage labor, canoe construction, commercial development, acculturation, etc.

121 C. Social environments.

1. Opportunity for contacts (both before and after relocation) with individuals who do not belong to the community.
    a. Identity of the outsiders--Australians, Americans, British, French.
    b. Status and role of outsiders--administrators, missionaries, other natives, ships' crews, armed forces, tourists, employers, traders, guests at celebrations, etc.
    c. Differential opportunities--young, old, men, women, chiefs, officials, spokesmen, etc. (e.g., do women of the community have opportunity to meet British women or British men; do only leaders of the community have appreciable contact with outsiders, etc.?)
2. Actual amount and kind of contact by young, old, women, etc.--daily, periodically, planned, casual, incidental, impersonal, commercial, social, etc.
    a. Intermarriage--rights and obligations with respect to affinal kinsmen, economic cooperation, etc.
    b. Friendships with outsiders.
3. Locale of contacts--within the village or outside it.
4. The initiators of contacts--village members or outsiders.
5. Differential reactions to categories of outsiders--Americans vs. British, Europeans vs. indigenous neighbors, traders vs. guests, etc.
6. Attitudes toward neighbors--superior, suspicious, hostile, aloof, critical.
7. Attitudes of neighbors toward them--hospitable, indifferent, resentful, contemptuous, etc.
8. Self-group image--misunderstood, mistreated, unlucky, indomitable, leaders, pioneers, representatives of their people, failures, etc.

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9. Acculturation--learning new skills from contacts, adopting outsiders' customs, accepting alien foods, becoming involved socially or ceremonially with outsiders through intermarriage, employment, entertainment, accepting favors, etc.

10. Impact on community organization with respect to:

    a. Leadership.

    b. Interpersonal relations, including those among kinsmen.

    c. Work groups, including labor for village benefit.

    d. Social and recreational groups, and the occasions when they function.

    e. Religious activities.

    f. Cooperatives and other commercial enterprises.

    g. Individualism and independence of primary kinship groups.

    h. Expedients and temporary procedures and patterns of behavior.

D. Contacts with congeners, of which there are three categories: 1. Contacts before relocation (such as Gilbertese and Ellice Islanders living and working together on Ocean Island, Tarawa, and Canton). 2. The relocated community maintaining contact with homeland (such as the Kioans and their friends and relatives on Vaitupu). 3. Two relocated communities in communication (such as Sydney and Gardner or Kioa and Rambi).

    1. Kind and frequency of contact--visiting, correspondence, returnees to homeland, new immigrants, joining relocated community, celebrations, reciprocal exchanges, schooling of children, etc.

    2. Encouragement of contacts or the lack of it.

        a. Government policy.

        b. By community leaders at home and in relocated community.

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3. Congener contact and morale of relocated community--homesickness, insistence upon maintaining identification with homeland and its customs, severance with traditions of the past, pride as pioneers, dissatisfaction or self justification resulting from comparison with others, fear of losing land and other rights and privileges at home, etc.

E. Disease

1. The community as a carrier of disease.

2. The community as a victim of unfamiliar disease.

3. The community's perception of new location as healthy or unhealthy.

F. Government welfare efforts. In all instances attempt to determine extent of government efforts to a) adapt measures to traditions of community, b) plan measures in consultation with community leaders and c) whether an action, a procedure, or an innovation was proposed by a government official or by a member of the community.

1. Relocation plans and their implementation.

a. Reasons for choosing the site for relocation.

b. Relocation procedure--reconnaissance party, resettlement officer, advance work party, "waves" of immigrants, assistance in construction of village, initial living arrangement for settlers, etc.

c. Relation of settlers to homeland--renounce land rights, foreclosure of possibility of return, other persons or groups permitted to occupy vacated lands, payment for expropriated homeland, income from produce of homeland (e.g., phosphate), etc.

d. Traditional value placed on land ownership--basis of social control and prestige, secondary to use rights, fishing rights, and other forms of property, etc.

e. Land tenure in new location--government policy, communal lands, individual ownership, system of allocation (e.g., by drawing lots, by priorities, by individual choice), size of plots, the unit of allocation (e.g., individual, family, or clan), land survey, temporary or permanent assignment, use right or ownership, etc.

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●121

f. Duration of relocation (i.e., does this variable affect adjustment?)

g. Number of relocations.

h. Actual or alleged governmental encouragement of hopes to 1) return to homeland or 2) relocate a second or third time.

2. Health measures.

   a. Provision of dispensaries, hospital service, medical aides, drugs, etc.

   b. Public health programs--mosquito control, innoculations, latrines, sanitation regulations, etc.

3. Economic assistance.

   a. Subsistence--issue of cuttings and seeds, advice and demonstration by government agricultural and fishing experts, etc.

   b. Issues of food in initial or other stages of the community's development.

   c. Advice and assistance in commercial enterprises--rewards for land clearing, subsidy of cooperatives, provision of transportation for copra, logs, purchase of products, price stabilization funds, abeyance or imposition of land or head tax, import or export duties, etc.

4. Education.

   a. Extent available--in or out of village, boarding schools, both sexes, etc.

   b. Extent required--e.g., compulsory, age requirements, standardization of curriculum, etc.

   c. Sponsorship--government or church.

   d. Teachers--source of pay, training of, ethnic affiliation of, family status of, language of instruction, etc.

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e. Provision of school buildings, educational materials.

f. Attitudes toward government.

G. Mission welfare efforts--consider all items above (under "Government welfare efforts") that are relevant.

1. Others--including recreation, community projects (e.g., house improvement, health campaigns), teacher-preacher combination, ethnic identity of pastors, religious affiliation of pastor, change in religious affiliation with relocation, pastor's identification with community, community support (material and otherwise) of the pastor.

H. Selection of emigrants.

1. Non-selection, i.e., all members of the community relocated.

2. By government--regulation of removal by establishment of quotas and priorities by such criteria as age, family connections, status, skills, labor potential, health, amount of land available at new location, poverty at home, etc.

3. Self-selection, i.e., community members individually or collectively decide who is to relocate (Examples: Kioans, Catholic families on Gizo moved to Loga).

a. Reasons--join kinsmen, support aged family members, join co-religionists, factionalism, etc.

4. Piecemeal vs. total removal at one time--effect on family and community solidarity, cooperation, leadership, morale, mutual assistance, subsistence potential, manpower available, etc.

II. Internal influences

A. Size and distribution of relocated community--concentrated in one village, segmented in two or more hamlets or villages, dispersed on individual homesteads.

1. Attitudes toward maintaining (a) concentration, (b) separation from neighbors.

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B. Socio-economic factors--age, sex, marital status, divisions of labor, money income, occupational skills, available manpower, eligible mates, dependents, education, etc. of community members.

C. Homogeneity or heterogeneity in background of community members--all from one village originally, or from one island, or from one region (e.g., Kioa and Kili vs. Sydney and Gizo communities). Differences with respect to dialect, traditional histories, affiliation with groups not represented in community, etc.

D. Degree of acculturation at time of relocation--missionization, government regulation, abandonment of indigenous customs (i.e., those antedating contact with Europeans and Americans), adoption of foreign dress, foods, house types, etc., wage labor, use of money, formal education, bilingualism, etc.

E. Familiarily with new homeland at time of relocation--limited to reconnaissance by community representatives (e.g., Kili, Sydney, Gizo), known from visits prior to time issue of removal arises (e.g., Paama and Epi), known by tradition or hearsay (e.g., Rongerik).

F. Addition and loss of members--births, deaths, intermarriages, adoptions, friendships, repatriations, continuing immigration, community segmentation, residence in urban centers or on plantations, etc.

1. Reasons, when relevant, e.g., desire to reunite divided families, securing heirs, joining adherents of same religious faith, government policy and regulation, land shortage, labor opportunities elsewhere, schooling outside of village, etc.

G. Key personalities within the community; i.e., individuals who have had a significant influence on the course of events in the community's history.

1. Non-native as well as native residents of the community--resettlement officers, advisors (e.g., Kennedy, Laxton)

2. Other native residents as well as community members--teachers, pastors, policemen, spouses, etc.

3. Social isolates, marginal individuals, "loners", "trouble makers", etc.

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121 H. Factionalism--religious, political, ethnic, generational, acculturational, etc.

I. Adherence to tradition.

1. Actual vs. alleged--optional observance of customary patterns of behavior, informants' description vs. anthropologist's observations, rationalizations for deviations from traditional norms (e.g., "it is temporary," "we can't get what we need," "young people don't care," "it is too much trouble").

2. Controls operating for and against continuance of tradition--training of young people, regard for elders, fulfillment of reciprocal obligations to kinsmen and community, sensitivity to opinions of friends and relatives at home, ease of escape from community obligations, formal mechanisms for reward and penalization (councils, police, courts, committees).

J. Esprit de corps.

For what is intended under this caption refer to Ralph Linton's Study of Man, pages 92-94.

[p. 236]

The Papuan Orokaiva Vs Mt. Lamington: Cultural Shock and Its Aftermath

Felix M. Keesing

731 What happens when people are subjected to unexpected catastrophic shock, dislocating their whole round of life and making a sudden break in cultural continuity? This occurred to some 9,000 Orokaiva in northern Papua when Mt. Lamington erupted on January 21, 1951. Some 4,000 Orokaiva and all of the approximately 30 whites at the Government and Mission stations in the main blast zone were killed. The survivors were forced to flee from ash-choked homes and gardens.

114 121 At the request of the Administrator of Papua and New Guinea, the writer and his wife visited this area some weeks after the main eruption and shortly after a second major blast. The purpose of the visit was to make a brief survey of the relief and rehabilitation operations set in motion by the Australian authorities and to give any advice possible. This area was one of the great battlegrounds of the Pacific war—the Kokoda-Buna-Oro Bay area—and since there are still a number of usable airstrips and jeeproads, it was possible to cover the emergency camps and other Government and Mission operations by plane, and then by jeep, canoe, and on foot, and to get some sense of the consequences of this catastrophe and of the problems involved.[1]

121 This paper does not purport to be based on profound knowledge of the situation for it will take a long while before its total dimensions can be properly assessed. Rather it is designed primarily to raise questions: some of theoretical significance, particularly regarding the responses of such people to cultural trauma of the first magnitude, and others from the "applied anthropology" aspect, relating to choices possible in official and mission policies in the wake of such a destructive experience.

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[657] [1] The actual field survey, covering approximately five days, was made in the company of Colonel Elliott Smith, District Commissioner in charge of relief operations, and included discussions with virtually all of the Government technical personnel, with representatives of the one Mission body operating in the area (the Anglican Mission), and through interpreters with some of the Orokaiva leaders. Discussions were held, too, with the Administrator, Colonel J. K. Murray, and other administrative personnel at the capital, Port Moresby, all of whom had been in an out of the devastated area from the beginning, and relevant official records were made available by them.

[p. 16-A]

731 or even force Orokaiva settlement patterns from the tradi-
657 tional scattered hamlet system to village or even town living.
177 Another tough question was how far Government should step
[361] in to supervise matters of economic and social welfare, includ-
[797] ing elementary schooling which hitherto policy had left al-
most wholly to the Anglican Mission. The majority of the
mountain Orokaiva are now adherents of this Mission, the
only body operating in the area. Questions relating to land
tenure, social group realignment, leadership, law and order,
and other matters involving local custom had also to be
faced, especially in the course of the first experiments in re-
settlement.[4]

731 Officials and Mission workers reported that the explana-
784 tions of the "cause" of the disaster given to them by Oro-
kaiva, were, in general, of a supernatural nature: "God"
was punishing them for "sins" such as "not supporting Mis-
sion and Government plans for development," "not building
new churches as requested by the Bishop," or "not helping
the Allies enough during the war." However much these may
731 have pleased the hearers, the *fact* seems to be that there were
152 resulting strong feelings of insecurity and even of guilt in
their retrospective look at the pre-eruption way of life.[5]
Officials who know the Orokaiva considered that these feel-
ings undoubtedly helped to foster the extraordinary degree
of cooperation and orderliness in situations where large
numbers of people were necessarily herded together and
shifted around without benefit of the traditional niceties
and proprieties.

121 This raises the whole problem of interpreting the overt
731 events here summarized in terms of their cultural and indi-
178 vidual contexts. In discussing theory relating to the dynamics
182 of change and resistance to change, the writer, along with
others, has referred elsewhere to the general tendency for
peoples to be pre-conditioned by the characteristic sets of their
culture and personality norms, to be differentially "adaptable"
or responsive to change in the face of new experiences.[6] The
impression gained in this case is that subject to inevitable
factors of shock and disorganization, the Orokaiva were cul-
turally predisposed to respond to the traumatic experience
here described with something approaching maximum adapt-
ability.

262 The mountain Orokaiva are shifting cultivators, and sup-
plement their staple food, taro, with sweet potato, yam,
banana and sugar cane. Flesh from domestic pigs, chickens,
dogs, and wild game is what Williams calls "a dainty rather
241 than a diet." "Fresh ground," says this ethnographer, "is
continually cleared for new plantings" in the typical pattern

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[113] [4] These matters are discussed particularly by C. S. Belshaw, an anthropologist working in Papua under the auspices of the Australian National University Research School of Pacific Studies, as a result of a visit to the area in April, 1951; see his "Social Consequences of the Mount Lamington Eruption," *Oceania*, 21, 4, pp. 241-252 (1951). This article was not seen until after the first draft of this paper was completed, and as the approach is considerably different the two papers are complementary rather than unduly overlapping.

[5] Belshaw, *op. cit.*, p. 242, stresses this "guilt" factor.

[113] [6] F. J. Keesing, "Some Notes on Acculturation Study," Sixth Pacific Science Congress, *Proceedings*, IV, pp. 59-63 (Berkeley, 1940); "Cultural Dynamics and Administration," Seventh Pacific Science Congress, *Proceedings*, 14 pp., mimeographed (New Zealand, 1949).

[P.18-A]

241 the Territory to the point of self-sufficiency and dietary adequacy
177 and one on which almost no progress has been made.
Theoretically the problem does not look difficult, in view
of the characteristic adaptability of the Orokaiva, the loose
group organization which involves no elaborately structured
hierarchy of vested interests in the *status quo*, and the freedom
of families to experiment as they wish as more or less
independent production units. But here, as in the case of
shifting gardeners in many comparable situations, the problem
is one of motivation, of incentives. Among the Orokaiva,
for all the enthusiasm they have engendered, past religious
and cooperative movements have not struck seriously at
the rotational basis of cropping, or introduced fertilization
[654] and other soil-maintenance techniques. The territorial Department
of Agriculture is desperately short of manpower
and it is not likely that it can afford to station a permanent
cadre of technical personnel to guide and supervise this
[799] still quite remote district. It is also very doubtful that the
Anglican mission could do so. Nevertheless, at the centers
referred to above, the present dynamic situation justifies giving
encouragement and aid on a voluntary basis to any
families and individuals who may wish to try out sedentary
cultivation, market salable products, and on a cooperative
basis of organization where desired. Such a non-compulsive
widening of the range of cultural alternatives seems in line
with a current strong stirring of ambition among some of
the younger, schooled Papuans to adapt to the modern world
and have a greater voice in the affairs of the Territory.

731 To the extent that this paper presents a correct interpretation,
its implication is that this catastrophic shock has produced
177 something approximating a minimum degree of cultural
178 trauma, considering the demographic dimensions and
the destruction and death involved. Predispositions in Orokaiva
● 121 culture and personality favored relatively easy "adaptive"
behavior in the face of crisis. The remarkably effective
[657] relief measures taken by the Australian authorities helped
materially to cushion the situation. Any attempt by Government
and Mission to use the emergency to manipulate such
a people and culture arbitrarily in drastically new economic
and socio-political directions would seem foredoomed to
failure, and would generate unwanted tensions. Yet opportunities
are clearly present for economic and other stimulation
121 and education of a voluntary and permissive type. Considered
as a case study in cultural dynamics it is illustrative
both of internal readjustment in a culture where a sharp
shock and break in continuity occurs, and of the implications
of attempted control and direction in culture process by a
dominant outside authority.

11

WHAT DID THE ERUPTION MEAN?

Erik G. Schwimmer

INTRODUCTION

121 How should anthropologists study a nonrecurring event? It is obviously of interest only if it is paradigmatic of some social law. But what kind of law? The question has often been faced and, most of the time, one of two answers has been given. The literature on this question has recently been surveyed by J. Kingsley Garbett in an essay, "The Analysis of Social Situations" (1970).

Garbett defines a social situation as "a temporally and spatially bounded series of events abstracted by the observer from the ongoing flow of social life" (1970:215). He summarizes the two types of analysis that have been made as (1) depending on some concept of a typical actor as performer of roles and (2) depending on a concept of the typical actor as a manipulator, the limits of whose rationality are specified.

Neither of these methods accounts for the "social situation" discussed in this chapter—the eruption of Mount Lamington in the Northern District of Papua (map 14). I therefore turned to a semiotic approach based on methods developed by Lévi-Strauss (1960) and Barthes (1964b). Semiology, as defined by Saussure, is "a general science of signs." This science studies systems of signs according to methods which will be indicated in the course of this chapter. The term "semiotics" was introduced by Margaret Mead. If this method is to be applied to the study of nonrecurring events, 121 the assumption is that such events are read by a social group as constituting a sign or system of signs.[1]

781 787 829 Such an assumption is legitimate in the case of the eruption of Mount Lamington. In the view of the great majority of my Orokaiva informants, the cataclysmic explosions in the mountain and related volcanic activity were utterances communicating a message. With unimportant exceptions to which I shall refer later, informants took what may be called a religious view of the eruption (Lévi-Strauss 1962:292). They invested with personal will what we would call forces of nature (van der Leeuw 1938:chap. 9). And not only did some Being cause the eruption, but he used it as a means of communication.

[121] [184] Whether it is expedient to study a cataclysm such as the eruption of Mount Lamington as a system of signs emitted by the mountain depends entirely on the quality of the insights that emerge. In this case, field inquiry showed the existence of at least four systems of thought on the significance of the disaster. The adherents of these systems each expressed a different world view consistent with their view of the eruption. The existence of such ideological differences within a single society reflects conflicts which occur not only on the level of discourse but also on that of social transactions.

121 781 829 184 Such data raise several questions that merit close examination. If all Orokaiva had placed the eruption within one logically consistent framework of meaning, we might believe that we had thus discovered *the* cognitive system of the Orokaiva. In the present case we find four ideologies and explanatory frameworks all generated by the same cognitive system, in the same way that different players may use a variety of strategies while competing with one another in the same game. It then becomes our task to reconstruct this cognitive system and account for a system of interrelated ideologies generated by a sequence of events as interpreted by the cognitive system.

121 781 829 Another question is whether ideological discourse about the cause of the eruption deals with all or some or any of the basic conflicts identified in the society by ethnographic study and analysis. My data dealing with the period 1951–1966, suggest that Orokaiva ideological discourse was rather selective in the conflicts with which it concerned itself. The conflicts between tribalism and regionalism and between denial and acceptance of the

121 partnership with European power are fully canvassed, but con-
[731] flicts arising out of the relocation of refugees after the eruption
and conflicts concerning land tenure are not reflected in ideologi-
[824] cal discourse related to the disaster. How can we explain this selec-
tiveness?

We may finally ask: To what extent have signs communicated by the eruption become an integral part of the Orokaiva system of thought in 1966? To what extent do they appear in the rhetoric expressing current ideologies? To what extent has the eruption generated these ideologies? How do cognitive systems adapt themselves to far-reaching events (such as the establishment of Australian authority) which call into question the traditional rationale for behavior? In short, the Orokaiva data lead us to an exploration of the dynamics of non-Western thought.

128 The factual material presented here corresponds closely to the preoccupations agreed on by the contributors to this volume. I commence with the presentation of some background data, emphasizing institutional, transactional, and ecological factors. The semiotic analysis that follows is focused on crisis behavior. The analysis will bring to light conflicts in two areas which are of special concern in comparative study of exile and migration in Oceania: the macrosystem/microsystem relationship and the maintenance of ethnic boundaries.

My discussion of land tenure conflicts, ignored in the ideologi-
cal discourse under examination, will deal with the cultural mean-
ing of spatial movement and the significance of land at various
[423] levels of culture. It will be demonstrated that although land tenure
[182] does not figure in ideological discourse about the eruption direct-
ly, it is integrated into ideological discourse indirectly.

121 The use of semiotics in anthropological analysis is at an early stage of development. Among the well-known pioneers in America are Bateson (1935, 1951), Mead (1964), Sebeok (1970), and sources such as E. T. Hall, Alfred Hayes, and Weston LaBarre. In this chapter, I have relied a great deal on the work of Lévi-Strauss (especially 1958, 1960, 1962), whose semiotics forms an integral part of his structural comparative method.

Semiotics has inevitably drawn extensively on linguistic concepts, since linguists have traditionally engaged in sophisticated analyses of symbols. The present chapter owes a debt to Saussure, to Hjelmslev, and especially to Barthes (1964a, 1964b). I would agree, nonetheless, with Sebeok's contention (1970) that semiotics is not merely concerned with a "secondary language" but is an independent discipline for decoding sign systems which are often not at all linguistic.

Among the concepts drawn from linguistics is the notion of a "sign" composed of a signifier and a signified. While many linguists do not concern themselves with the signified (which they tend to relegate to the realm of psychology), in semiotics the relationship between signifier and signified is the chief object of study. We may put this differently (with Hjelmslev and Barthes) by saying that a sign has a level of expression and a level of content. Furthermore we may distinguish, at each of these levels, between form and substance. Semiotics differs from linguistics in that the signifiers often do a great deal more than just signify something. For instance: the eruption of Mount Lamington did a great deal more than emit an utterance; it emitted enough substance to change the landscape of the entire district.

Semioticians argue that whatever object we use to serve our needs and whatever object affects our destiny obtains a semantic value, becomes a sign. Wearing a raincoat not only protects; it also signifies some fact about the weather. In Papua, wearing a banana leaf signifies that it is actually raining; wearing a raincoat may mean no more than that it is likely to rain. Barthes speaks, in this connection, of "functional signs": on the level of expression, the form has semantic value but the substance is utilitarian, going beyond signification.

Our concern in this chapter is to describe the frameworks of meaning attached to the eruption of Mount Lamington. Therefore we are dealing with what Barthes has termed complex semiotic systems. To show why this is so, let us first consider the primary sign system. Hjelmslev (1963) represents a sign by the formula ERC, where E is the level of expression, C the level of content, and R the relation between the two. To give a semiotic example, in the Road Code the level of expression (E) is made up of the colored signals and the level of content (C) is a set of orders given to drivers of motor vehicles. The relationship (R) between the lights and the orders arises out of a system of legally sanctioned conventions. The total sign is ERC.[2] Here the level of expression (E) is made up of volcanic phenomena and the devastation they caused. At the level of content (C), informants explain that the anger of the mountain or of God is demonstrated by geophysical phenomena. But several other questions at once present themselves: Why was the mountain or why was God angry? To discuss this question we need a metalanguage in which we can define terms such as "anger," "Sumbiripa (the mythical master of Mt. Lamington)" and "God." Hjelmslev and Barthes call this a "denotative system": the level of content (C) is made up of a second system of signification (ERC).

There is another system of signification, called a "connotative system," which has been studied far less than metalanguages but is of great importance in semiotics. For instance, wearing a raincoat and wearing a banana leaf do not, for a Papuan, have the same connotation. Wearing a banana leaf connotes that one is a simple villager; when a Papuan wears a raincoat, it connotes that he is going to town or for some other reason wishes to emphasize his familiarity with European custom. A connotative system is a system (ERC) whose level of expression (E) is itself made up of a full system of signification.[3]

Differences in the signifier which are insignificant in the primary system (a raincoat and a banana leaf both protect against rain; there is no difference on the level of content) become significant in the connotative system as signaling differences in social position. Connotative systems are frequently used in the art of persuasion. If one wishes to persuade another person to choose one alternative over another, a frequent technique is to invoke an appealing ideology by the use of appropriate rhetoric. Thus an advertiser may evoke in the reader's mind an image of a desirable way of life and then persuade him, by a clever use of analogies, that a product he wishes to sell opens a way to this mode of life.

The difference between systems of connotation and denotation is not always easy to mark in the material analysed in this essay. For instance, discourse about the eruption not infrequently served the purpose of proving that one tribe was better than another, that white power will disappear, that white man's science is the road to Papuan salvation. Could one seriously maintain that the meaning of the eruption lay in propositions of this kind? One may rightly say that those who put forward such propositions, while ostensibly explaining the eruption, were in actual fact using a rhetorical device to promote their own ideology. On the other hand it is impossible to go far in the analysis of Orokaiva or Yega metalanguages without ending up with a construction of the type just quoted.

What Lévi-Strauss demonstrated for primitive thought in general applies in large measure to the thought of the Orokaiva: metalanguages are constructed in such a manner that associations between signs provide causal explanations. Hence, in a purely formal sense, there may actually be no "level of content" in Orokaiva discourse, but only an endless chain linking different signifiers together by principles of association.[4] Thus every metalanguage among the Orokaiva is reducible to systems of connotation.

In the circumstances it may be argued that the distinction made by Hjelmslev and Barthes between systems of connotation and denotation ought to be abandoned. I think, however, that it has some utility in distinguishing phases of the Orokaiva thought system—that is, a phase where the main concern seems to be explanation and a phase where the main concern is rhetorical and ideological.

In this chapter, I have applied semiotics in the context of the anthropology of development. I shall deal with several hierarchically ordered systems. The largest is the regional colonial macrosystem, comprising on the one hand the Papuans of the Northern District and on the other the colonial power foci, administration and mission.[5] Below this is the tribal level, consisting of an Orokaiva and a Yega cognitive system. In the Orokaiva system, several subtribal systems exist in opposition to one another. Two of these, the Waseta-Isivita and the Sangara system, are considered in this chapter. As each person is at the same time a member of a subtribe, a tribe, and the regional communication system, each person has access to, and potentially draws upon, a plurality of systems of thought, so that contradictions normally exist between the various views held by the same person within the context of different systems.

Environmental circumstances act on these various semiotic systems not by creating them but rather by changing the emphases placed on some of the available systems at the expense of others. Thus cultural changes become apparent as changes in the emphases placed on alternatives present in semiotic systems. This raises a problem of obscurantism. Since the evidence for a semiotic system is made up, in the first instance, of informants' statements, it may reflect no more than a "conscious model" of the system while highly important aspects may be suppressed for ideological reasons. For instance, if the evacuees desired a "new age," 121 why were they so anxious to return home where they could no longer be instructed in its practices? The answer seems to lie in the land tenure problem, discussed later, which was reflecting fundamental structural changes in the society. But why was this problem passed over in silence in all the statements about the "new age" recorded for the period immediately after the eruption? The answer to this question may be mere speculation, but it is clear that by excluding land tenure from our analysis, we shall become the victims of our informants' own mystifications, which is all the more regrettable since, by 1966, Orokaiva ideologists had recognized the importance of the land tenure problem for the setting up of the "new age." Our final analysis is therefore based on an unconscious model which includes this factor.

THE EVENT AND ITS SETTING

133 731 On 21 January 1951, Mount Lamington, a mountain situated in the Northern District of Papua, was torn apart by what is technically known as a Pelean eruption. A paroxysmal explosion burst from the crater and produced a *nuée ardente* which completely devastated a surrounding area of 68 square miles (Taylor [165] 1958:7).[6] Almost 4,000 people, mostly belonging to the Orokaiva-speaking group of tribes of the Northern District, were killed. The 101 word "Orokaiva" is used here to designate speakers of the Orokaiva language, resident in an area roughly coinciding with the Popondetta, Sohe Popondetta, and Saiho census divisions (see map 1[A]).[7] This area comprises the foothills of Mount Lamington and the alluvial plains to the north and east. The area is rather homo- 731 genous in culture, and dialect differences are minor. Destruction in this inner zone of devastation was almost complete. A further 22 square miles were partially devastated, and it was from this area that some 3,000 inhabitants were able to save themselves by running away from the *nuée ardente*. The population of the Mount Lamington foothills, within a radius of at least 10 miles from the crater, fled from their villages as the explosion threw stones over all the area, destroyed the administrative center at Higaturu, and blotted out the light of the sun.

It was at this point that the administration of the Territory of Papua intervened. Australian authorities sent in supplies for the

A [See Category 102, p. 303--Analyst]

781 rather than security was the main motive. Villagers were able to 166 use the land they had occupied before the eruption.

The Orokaiva case was therefore anomalous in a comparative study of community displacement. There was no new physical or 781 social environment to which the Orokaiva had to adapt. There was, however, a very traumatic experience and a temporary displacement. Moreover, the eruption did permanently change some significant geographic features of the district: the network of roads, village sizes, village locations in relation to paved roads, the location of the administrative center and institutions like the hos- 121 pital and mission. As these facts have been fully covered in my earlier report, in this chapter I treat them briefly and then turn to a somewhat broader but related question: How does a cataclysmic event such as this eruption (and the temporary relocations that followed) affect the structure of Orokaiva society?[4]

My research included three intensive studies of single villages. [101] The relocated village on which the fullest data were collected was Sivepe, situated 7 miles from the crater, on fertile, well-watered, well-drained volcanic loam, with a population density of 180 per- 781 sons per square mile. Like all the villages west of the crater, Sivepe suffered hardly any casualties but the people fled in panic and 166 were accommodated in the evacuation camp at Ilimo, a few miles west of Kumusi River near the road to Kokoda. They stayed at the camp until May, after which two of the local clan groups returned home while the third was relocated in one of the large villages established along the main Buna–Kokoda road after the eruption.[5] This third clan group returned to Sivepe early in 1952. Sivepe was 781 rebuilt less than 1 mile from the old site. The most important immediate consequence of the eruption, as far as Sivepe was con- 797 cerned, was the establishment of a large mission complex at Sasembata, 1 mile away. With the assistance of surrounding villages, the mission built a large school, a large church, and a hospital. One reason for this development was the establishment, by the government, of a large village for victims of the eruption. This was built at Kongohambo (maximum population 900), a quarter mile from the mission station. The mission services remained after the Kongohambo evacuees had returned to their own areas shortly after 1953.

781 For Sivepe, therefore, the eruption led directly to two highly important event sequences: first at the evacuation camp; later in rela-

781 tion to the mission station. The government had demonstrated in
the most tangible way that it accepted broad responsibility for the
people's welfare in a time of crisis and would act with great generosity
in such circumstances. The mission, which likewise had established
close relations with the people of Ilimo, had subsequently
remained to develop those relations.

101 As a control group for the study, I used the small village of Inonda,
12 miles from the crater and outside the restricted zone. Inonda
[121] differed from Sivepe in that its population was never
[781] evacuated or relocated. It continued to use its own land. The comparison
of Sivepe and Inonda thus provides a measure of the effects
of actual relocation as distinct from other experiences the
two villages had in common. In Inonda only one-fifth of the land is
arable; none of it is as fertile as the volcanic loam of the Mount
Lamington foothills; rainfall is lower than in Sivepe and so distributed
that lengthy droughts are not uncommon. Drainage is inferior
while population density is only ten persons per square mile.

781 Inonda acted as host for the population of Sewa village who fled
their homes on the morning of the eruption. Among the fugitives
871 was a mission teacher who set up a school in Inonda. When he was
later transferred to another district, Inonda pleaded fervently and
successfully to get him back. Today Sunday services are given by a
lay preacher and children attend a mission school several miles
away which teaches up to grade two.[10] Interaction with government
and mission authorities was far less intensive at Inonda than
at Sasembata.

781 The third village I studied was Hohorita (population 348), 7
miles from the volcano, with soil largely similar to Sivepe's, good
[101] rainfall, good drainage, and a population density of 135 persons
per square mile. Hohorita is made up of the survivors of the Sangara
tribe, once 4,000 strong, which was almost entirely wiped
781 out by the eruption. The survivors were evacuated to camps along
the coast and then allowed to return to the boundary of the restricted
166 area, where they built a village called Irihambo. They
were ordered to leave this village some years later (as it was situated
on crown land intended for the settlement of Australian exservicemen)
781 and then established Hohorita in 1957–1959. The
Hohorita people, like other relocated groups, had had intensive
contact with government and mission personnel. An unusually
large number entered skilled occupations, partly because the San-

781 tion perished in the eruption and the survivors were therefore not
fully instructed in traditional religious knowledge. Innovation
178 proceeded without the resistance an older generation might have
offered had it survived. I have argued elsewhere that this absence
of the elders led to striking changes in the Sangara perception of
the world (Schwimmer 1969:70–71).

781 If we compare relocated villages such as Hohorita and Sivepe
with villages touched less by the disaster, such as Inonda on the
184 alluvial plains, we notice that the former villages are larger, dis-
182 play more of the innovations advocated by the government, have a
higher level of school education, and have responded more to gov-
ernment-sponsored schemes such as coffee growing. In my de-
tailed report (Schwimmer 1969), I was inclined to ascribe such
differences to the effect of close contact and guidance during the
period immediately following the eruption, but such an explana-
tion should be treated with caution.

The differences are probably due largely to ecological factors
described in the report. Inonda land provides more animal foods;
it is slightly closer to wage employment and markets; the climate
is less suitable for cash crops than in Sivepe. The population, due
to its sparseness, is relatively deficient in health and educational
services. Hence the conditions for cooperation with government
programs were less favorable than at Sivepe. Furthermore, the ob-
served differences may also be due to historical factors. While
coastal and foothill areas had been missionized and in contact
with the administration for many years, the intervening Sauaha
groups including Inonda were defeated and sustained heavy losses
[177] in the warfare of the early postcontact period. They subsequently
remained aloof from white contacts. After the Japanese occupa-
tion, some of their men were hanged by the Australians for having
acted as collaborators.[11] Hostile feelings are still an impediment to
the acceptance of government and mission programs.

781 Such social consequences of the Mount Lamington eruption do
not in themselves lead readily to illuminating anthropological
generalizations. The actions of government and mission im-
mediately after the eruption greatly relieved the distress of the
population, but we cannot establish that these actions, directly
● 121 and specifically, led to major social changes. One might therefore
be inclined to view the eruption of Mount Lamington as lacking
serious anthropological interest, yet such a view would greatly

121 limit the relevance and power of anthropological study. A cataclysm of such awesome proportions must obviously have had psychological as well as social effects on Orokaiva individuals since the same cataclysm was, after all, experienced in one form or another by everybody. If a culturally homogeneous group has any intellectual facility in the development of common symbols and the transformation of its symbol system, then it is reasonable to suppose that the eruption would have social effects of this less tangible kind.

The Mount Lamington eruption, viewed in this way, offers a case history of theoretical importance. Where the immediate cause of relocation is a natural disaster, we are dealing with contingency in its purest form: an event no sociological (or psychological) theory could possibly predict. Can such an event change the structure of a people's symbolic thought? If it can, then this would cast doubt on any claim that cultural systems are determinate, as they could be changed at any time by unpredictable contingencies. The question whether the content of the symbol systems and social systems of specific cultures is determinate has been raised throughout the work of Lévi-Strauss. Determinacy may be found, however, in the processes of human thought as we seek to comprehend an event, however unpredictable. If our method of understanding humans is the analysis of symbolic thought, then the study of unpredictable contingencies is important in revealing the genesis of symbolic thought.

EXPLANATIONS OF THE DISASTER

823 772 I showed in an earlier work that Mount Lamington has long had a central position in the Orokaiva world order (Schwimmer 1969: 5-6). In fact, the Orokaiva regard Mount Lamington as the center of the cosmos. It is the place where, in Orokaiva myth, death, war- 823 773 fare, and fire originated. Many of the transforming deities who are said to have established the rituals and social customs of the Orokaiva came from the crater of this mountain. The division of the populations of the Northern District into tribes or language [103] groups supposedly occurred at the same place. The mountain is called Sumbiripa Kanekari, 'the separation of Sumbiripa', after [776] the myth in which the mountain opened up and split into several unscalable crags. Sumbiripa was hunting on the mountain with

731 184 823 cism from white planters and public servants that the church, by preaching that the eruption was due to God's wrath, is pursuing obscurantist and reprehensible power politics. Orokaiva informants who adopted the geophysical explanation said that before the eruption they did not know about volcanoes but have now learned from the white man that a volcano operates according to certain natural laws.[15]

There is no magico-religious Orokaiva metalanguage in which this explanation can be expressed. On the other hand, its connotation is clear. The explanation marks an informant as highly educated, free of superstition, and a good friend of the whites (including the anthropologist). The explanation connotes that magico-religious theories are old-fashioned and geophysical theories are modern. It divides the social universe into old-fashioned people (whose views have become irrelevant) and modern people (who include the Europeans and a Papuan elite who befriend them). Such a division vitiates the regional unity envisaged by the Yega and Christian explanations.

731 184 829 The connotations of the four explanations I have presented can thus be expressed in a simple model based on two highly significant oppositions which arise in the macrosystem of the Northern District and in the changing system of ethnic boundary maintenance.[16] The first opposition is between refusal and acceptance of a relation of positive reciprocity with Europeans. The second opposition is between tribalism and ideologies envisaging the unity of the Papuan tribes of the region.

	Explanation			
Connotation	Waseta	Yega	Christian	Geophysical
Rejection (−)/acceptance (+) of Europeans	−	−	+	+
Absence (−)/presence (+) of regionalism	−	+	+	−

ANALYSIS OF THE METALANGUAGES

121 829 Our next task is to analyze the evidence for Orokaiva systems of thought in which notions like 'the anger of Sumbiripa' and 'the anger of God' become fully comprehensible. We shall soon find

121 829 that instead of timeless constructs of primitive philosophers we are occupied with a series of historical events both before and after the eruption, all of which became signs much in the same way as the eruption; the explanation will take the form of the tracing of associations between these signs. There are, however, some stable principles governing these connections. We turn to these first.

829 431 I have argued elsewhere that the social structure of the Orokaiva is characterized by a weak patrilineality with small corporate groups but that exchange transactions between these groups are, in many respects, highly structured (Schwimmer 1970a, n.d.). These exchanges follow rules which are justified by an elaborate system of thought arising out of the principle that gift making is the source of social potency and exchange is the measure of that potency. Such a system, by its very nature, makes no assumptions about the permanency of social associations, as it is only the success of exchange transactions that allows associations (outside the small corporate groups) to endure. Decisions about the upkeep of particular associations are of necessity determined by criteria of allocation. According to Orokaiva ideas, associations go through alternating periods of positive reciprocity (friendship) and negative reciprocity (war). Whereas in Western thought permanence is considered normal and quarrels a deviation from the norm, the Orokaiva do not envisage either friendship or enmity as permanent states but rather as alternating temporary states.

829 571 The implication of this philosophy for social relations (and this includes Orokaiva-white relations) is that they never are what a Westerner would call "friendly" or "hostile." It would be more correct to say that at any given time they may be going through a positive (friendly) or negative (hostile) cycle. Movements from positive to negative cycles tend to be gradual, since in the Orokaiva view social relations tend to deteriorate constantly, little by little, until they become hostile. On the other hand, movements from negative to positive cycles tend to be highly dramatic and ritualized—usually through reconciliation feasts and gifts. In relations with Europeans, reconciliations are harder to effect since there is no commensality between the ethnic groups.

If it is natural for social relations to deteriorate constantly and gradually, it is still possible to decide that one will allow an association to deteriorate before one takes active steps to restore it. Such a choice is determined by many factors: intrinsic attraction

781 biripa' in terms of a simple transactional sequence. The 'anger of
God' can be similarly explained, though here the sequence is more
784 complex. As a general device for constructing metalanguages,
776 transactional sequences are of course wholly inadequate. I have,
797 however, indicated that in the Orokaiva cognitive system God is
classified as an exchange partner (though more powerful than all
other possible partners).

The eruption thus becomes one of a sequence of signs which express the development of the exchange partnership with God. Similarly, in other explanatory systems, the eruption becomes part of a sequence of exchanges with Sumbiripa. It follows from this argument that the eruption changed the relationship witn God or Sumbiripa, in the sense that a sign of such magnitude provoked a response. While the sign may have existed as such only in the minds of the Orokaiva, the response was on the level of real social, economic, political, and religious behavior. The general form of Orokaiva metalanguages, as exemplified in the case of the eruption, is sketched in figure 1.

EXPLANATIONS AND THE COGNITIVE SYSTEM

128 We have now surveyed the four explanations given of the eruption of Mount Lamington. In my discussion of the denotative systems, I concentrated on two of them: the anger of Sumbiripa and the anger of God. I did not specifically discuss the geophysical explanation because it was too summary for analysis, nor did I analyze the Yega explanation further because of the uncertainty about the
781 agent of vengeance. We have seen that the four explanations were,
in each case, not only a psychological response to calamity and a
184 philosophical exercise but also expressed ideologies essentially unconnected
829 with the eruption and that, in this respect, discourse
about the eruption was actually rhetoric used to express the
ideology.

The coexistence of four such ideologies in the same society poses
121 obvious questions about their interrelations. Were they held by
separate groups who did not communicate? Did they reflect divisions within the society? Furthermore, a formal problem arises: as these four explanatory systems all arise in one, fairly homogeneous society, are they in a sense cognate and do they display features of homology? On the basis of Orokaiva data, it may be possible to

121 construct a higher-level system which accounts for all the explanations
taken together.

Let us first survey the relationships between the explanatory
781 systems on the social level. They do not logically contradict one
829 another: they can be and are held simultaneously by the same people.
There is no need to believe that the eruption was caused *either*
184 by God *or* by Sumbiripa nor that the intended victims were *either*
[776] Orokaiva *or* Europeans. My informants did not seem to view God
and Sumbiripa as wholly distinct. Whether one ascribed the eruption
to one or the other depended on the context of the discourse.
Most Orokaiva do connect the death of European public servants and army personnel at Higaturu with the hangings that occurred after the war. They believe that these Europeans acted wrongly and that God punished them. But at the same time they believe that the eruption was a sign of God's anger toward the Orokaiva who had not followed the laws of the Church of England.

One cannot, therefore, gauge the relative strength of the three ideologies by counting what proportion of a sample of Orokaiva informants subscribes to one or another of the three explanations. One can, however, evaluate the general effect of each of the three ideologies. The belief that Sumbiripa caused the eruption had only the mildest historical consequences—merely the reinforcement of a hunting taboo. The belief that the mountain erupted to punish Europeans might have become historically important if the mystical Yega cooperative movement had grown to a major millennial
[744] cult, but this did not happen. In fact, the Yega cooperatives went
into a decline after 1951, owing to crop failure, the departure of
its advisors, and governmental opposition in the form of economic
and legal obstacles.

None of these reasons would have sufficed to kill the movement
781 had there been, in the 1950s, a strong opposition to the administration
657 of the Northern District. There is, however, no evidence of
797 this. On the contrary there was, between 1951 and 1967, steadily
increasing support for the ideologies advocated by government and mission. In this context the theory blaming the eruption on previous noncooperation by Orokaiva obtains some historical significance. It would be absurd to suggest that the increased support can actually be explained by the existence of the Orokaiva theory about the eruption. On the other hand, this support is now undoubtedly more powerfully motivated than if the eruption had

[TEXT CONTINUED ON PAGE 330]

781 of the evacuation camp provide an interesting case study in the
relation between administration and Papuan ideologies.

657 Several frightening explosions and floods occurred in February
and early March 1951. These vindicated the administration's restricted
781 area policy, which kept the mountain slopes out of
bounds. But after the period of acute volcanic phenomena was
166 over, Orokaiva pressure on Mr. Kaad, administrator of the Ilimo
Camp, grew steadily. The opening up of restricted areas began as early as April 1951, so that the population of Ilimo began to decline sharply in that month—from 2,000 to about 1,000. It declined to 500 before the camp was closed in May. Although the speed of resettlement did not actually conflict with administration policy, Kaad freely admits that the pace was forced by Orokaiva pressure.

This speedy return to the land was prompted largely by fears
which rapidly began to overshadow the Sasembata villagers' fear
[769] of the mountain. In part, these fears were religious. Separation
from the land meant separation from ancestral spirits who were left altogether untended when the whole community lost access to the land. Proper birth rites and ritual care for infants became impossible, as was ritual care for the dead, for both must be performed on the taro field associated with certain deceased consanguines.
[429] On the sociojural level, the migration of an entire agnatic
group was dangerous since it could activate residual rights over land which were held by other agnatic groups.

121 It is likely that the same anguish about separation from the land would have been felt by most swidden agriculturists in the same circumstances. Such anguish cannot be fully explained by the religious and jural system prevailing in one culture alone. My purpose in this chapter, however, is more limited. It is to relate Orokaiva ideas about the eruption to Orokaiva ideas about land and spatial movement.

423 These ideas are part of the structural patterns to which I referred
above: the weakness of corporate groups and the emphasis
425 on the exchange system (see also Rimoldi 1966; Schwimmer
1970a, n.d.). At least half the land in Sivepe and nearly all the land in Inonda is occupied by persons other than the agnatic corporation acknowledged to be the "original" owners. Occupation of such land arises mainly out of use rights granted by these owners to nonagnates. In practice such use rights often become heredi-

731 cognitive system. For the most part, however, I was concerned
with microprocesses, such as the simultaneous development of ex-
181 planatory systems based respectively on a tribal, Cargo Cult, and
178 church-administration ideology. None of these ideologies was generated by the eruption, but the eruption was treated as a sign within the context of each of these ideologies, with a different interpretation in each case.

121 The eruption became a sign because it took its place in a series
731 of ongoing transactions with supernatural beings. As such it had the effect of changing the relationships with these beings in regard
181 to both duties and expectations. The eruption differed from other such signs mainly by its cataclysmic character and its unequivocal demonstration of power. The fact that different interpretations evolved is not an accident but mirrors an ongoing debate within the society. The evidence suggests that cognitive structures do not change by a process of unilineal development but by a process of internal differentiation opening up a dialectic between ideologies opposed to one another along the axes of basic social conflicts. In the Orokaiva case these axes were tribalism/regionalism and denial/acceptance of the partnership with European power. If opposition exists along these two axes, four systems are theoretically possible—namely, tribalism + denial, tribalism + acceptance, regionalism + denial, and regionalism + acceptance. As we have seen, each of these four combinations was found in actuality. The four Orokaiva theories thus form a well-structured whole, and together they express contemporary Orokaiva social reality. The structural changes that were taking place in the period 1951 to 1966 did not come out overtly in discourse but had been recognized and given meaning in terms of the ideologies in 1966.

NOTES

122 I acknowledge with gratitude financial help received from the Displaced Communities Project, the Canada Council, and the Killam Foundation in the
128 preparation of this chapter. I thank Michael Lieber for his valuable comments on the original draft, which stimulated me to clarify and expand my arguments, and Sandra Wallman for her comments and criticisms. My wife, Ziska Schwimmer, gave valuable assistance in the interviewing of female informants in the sample communities. This chapter was written before independence for New Guinea became a reality.

121 [178] 1. In the Mount Lamington case, the institutional approach would produce results somewhat similar to Lessa's in his excellent paper "The Social Effects of Typhoon Ophelia (1960) on Ulithi" (1964). The major innovations over the last thirty years were due not to the eruption but to the Japanese invasion, the subsequent expulsion of the Japanese by Allied forces, the introduction of large-scale cash cropping, increased urban migration, and the development of officially supported indigenous political institutions.

The exchange theory approach of Blau and Barth has been followed to some extent in the present essay, but as Garbett (170:225) remarks in the essay already referred to: "Unless one wants to treat situations as simply another kind of 'small group' in an extra-laboratory setting for the testing of propositions from exchange theory, one's findings have to be related to, and set in, a wider context presumably studied by other methods."

2. For semiological discussion on the Road Code, see Lévi-Strauss (1958:chap. 5) and Leach (1970:chap. 2).

3. As an illustration of connotative systems, Barthes (1964a) analyzes a full-color advertisement for grated cheese, spaghetti, and tomato paste and shows that the items in the picture are so displayed as to connote all the delights of a carefree life in sunny Italy where foods are sweet, fresh, unadulterated, and perfect in appearance.

4. The relationship between signifier and signified suggested here may not be peculiar to "the savage mind" but universal, as is suggested by Lacan (1966: 493–528).

[114] 5. One of the first useful studies of regional colonial macrosystems known to me in New Guinea ethnography is Burridge (1960), which indicates clearly the modalities of conflict and alliance in the Papuan–administration–missionary triangle. Extremely important also is Fredrik Barth's work on polyethnic systems (1969) and on forms of regional organization in New Guinea (1971).

133 6. The term "Pelean eruption" is applied to the type that occurred at Mount Pelée (St. Pierre, Martinique) in 1902. A large mass of ash is projected rapidly into the stratosphere to form an expanding mushroom-shaped cloud. The base of the column begins to expand rapidly as clouds of incandescent ash (the *nuée ardente*) avalanche down the slopes. The *nuée ardente* is lethal because of sudden damage to the respiratory system caused by inhaling hot (200°F) dust.

101 114 731 7. The reports written by these two scholars (Belshaw 1951; Keesing 1952) led to the inclusion of the case of the Mount Lamington Orokaiva in the project directed by H. G. Barnett and entitled "A Comparative Study of Cultural Change and Stability in Displaced Communities" (1961).

121 8. Here and throughout this essay I use the term "structure" in the sense of Lévi-Strauss (1958:chap. 15).

731 166 121 9. I have used British terminology in most of this essay as it seems hazardous to adopt American terms in a British-French conceptual framework. Where I use clan, American anthropologists would usually write "sib." The term "local clan group" refers to a coresident segment of a dispersed clan (or sib). A full discussion may be found in Schwimmer (1970a).

Part III

5

Friendship and Kinship: An Attempt to Relate Two Anthropological Concepts[1]

Erik Schwimmer

THE PROBLEM OF A DEFINITION OF FRIENDSHIP

121 A universally applicable definition of friendship is difficult to arrive at. Nonetheless, the sentiments attached to the concept of friendship have, to anyone with anthropological experience in non-Western societies, the appearance of being universal. But even if the sentiments are universal, it is impossible to designate categories of persons, recognized in all cultures, between whom the sentiments of friendship normally prevail. The term 'friend' is, in many languages, non-existent or indistinguishable from 'kinsman.'

One may argue, as Paine has done (this volume, pp. 117–37), that friendship is a relationship found only in societies of a certain type. Thus, friendship would be personal and private and have characteristics such as autonomy, unpredictability, and terminality. Paine argues that societies which have friendship in this sense tend to be technologically advanced and complex in their socio-political structures. While one can find no scholarly objections to this approach, it leaves unsolved the question which concerns me in this essay: can we find a definition of friendship such that the symbolic idioms in which the sentiments of friendship are expressed in all cultures can be comparatively analysed?

Clearly, we cannot do so directly as these symbolic idioms are part of a vast variety of classificatory systems found in different societies and the place of friendship in these systems depends on their overall arrangement. We can, however, start from a universal type of association which is initiated by mutual attraction and which is maintained by the exchange of intrinsic benefits (benefits arising solely or largely out of the association itself). We can then inquire whether there is a universal relation between this phenom-

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[1] This essay is based on research carried out in the Northern District of Papua in 1966–7 and 1970 (with the financial help of the Canada Council and of the *Project for the Comparative Study of Cultural Change and Stability in Displaced Communities in the Pacific*, directed by Dr. H. G. Barnett). My wife, Ziska, helped in data collection, especially for the section on *jao* relationships. Dr. T. F. S. McFeat and Mr. A. Tanner read the manuscript and made useful suggestions.

[p. 49]

121 enon and kinship, which is another universal type of association. Blau's psycho-sociological analysis (1964) clarifies how the exchange of intrinsic benefits among men is generated and by what universal psychological laws it is conducted. We would be unwise to call it friendship, since it normally exists among kin as well as non-kin, and if we referred to all kin as friends, our terminology would become idiosyncratic. I propose to use the Greek term *philia* for this type of relationship, in homage to Aristotle who first formulated it in a way which can be utilized by social scientists.

Aristotle distinguishes between good, useful, and pleasant forms of *philia*; he regards as best those relationships which combine the three forms. Thus, one may say that between consanguines, there is some form of *philia* or else a state of enmity. In practice, many of these relationships are imperfect, being merely good (but not pleasant or useful) or merely useful (but not good or pleasant). Outside the kin system, the objects of *philia* are, to a far greater degree, the result of free choice. The selection of the few individuals – kin or non-kin – with whom a person can have the highest type of *philia* relation (combining all three forms), and the duration of such a relation once established, is never determined by positive rules. A frequent pattern in primitive societies – it being almost an institution – is the selection of a 'favorite' brother, sister, uncle, or other relation; usually only in such relationships of favouritism can the ideal norms of the society be realised.

Aristotle distinguishes further between *philia* born or not born of membership in associations, and between *philia* joining equals and non-equals.[2] Some (equal or non-equal) personal *philia* relationships are extremely intimate, as in the case of the partners identifying psychologically with one another. In all *philia*, there is a tendency to exchange benefits according to a principle of distributive justice.

Aristotle regards kinship and affinity as special forms of *philia*, combining the good, the pleasant, and the useful so that they represent, in their character as well as in their long duration, *philia* in the fullest sense of the word. Aristotle's discussion of the husband-wife relationship is a complex one: it has aspects of inequality (man being the superior) and of equality (a pooling of contributions); of association or corporateness (joint ownership of the children); and of reciprocity (helping each other out, their obligations being based on the principle of exchange).

Unlike modern Western philosophers, Aristotle does not propose a con-

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[2] Institutionalized friendship in the sense of Eisenstadt (1956b) would be equal and arising out of associations. Friendship in the sense of Paine (this volume) would be equal and not arising out of associations, but rather private and personal. Studies of unequal *philia* have been conducted recently by Dumont (1966) in India and by Nakane (1970) in Japan. For unequal forms of *philia* not arising out of associations, we must look at many of the recent studies of patron-client relationships and of Big Men in Melanesia. An excellent analysis of this type of relationship is offered by Aristotle in his discussion of *megalopsychia* in Book 4 of the *Ethics*.

121 cept of friendship which *excludes* kin. The quality of *philia* can bind together kin and non-kin alike. He does not exclude purely political and economic forms of *philia*, though he regards them as being on a lower level; that is, useful but not necessarily pleasant or good. In this essay, I shall disregard them, restricting myself to relationships in which intrinsic benefits are exchanged.

In addition to kin relations, then, *philia* includes a residual category of affective relations between non-kin. In the first instance, I shall define friendship as this residual category. I recognize the feebleness of such a definition and can understand why Paine (this volume, pp. 117–37) rejected it. There can, in fact, be only one justification for setting up this residual category, and that is that our analysis is able to reveal in it a structural principle.

My main purpose in this essay is to demonstrate how we can arrive at such order or structure in one specific case: the Orokaiva of the Northern District of Papua. But the entire discussion requires the use of concepts which are by no means familiar from previous literature. Hence, I have provided a preliminary survey of some empirical illustrations of these concepts. First, if we make a conceptual distinction among *philia*, friendship, and kinship so that the *philia* set is always equal to the sum of the friendship and kinship sets, then four real possibilities exist: 1) there may be no friends at all (but I know of no cases of this supposedly primitive pattern in Oceania); 2) all persons designated as 'friends' are primarily classified as 'kin'; 3) all persons designated as 'kin' are primarily classified as 'friends'; and 4) there are two sets of persons known to every individual who classify some persons exclusively as friends and some as kin.

Secondly, a society may have a notion of *philia*, but it may classify the members of the *philia* universe by criteria other than the presence or absence of consanguinity. Theoretically, there could be an infinite number of ways of subdividing the *phila* universe, but let us limit ourselves to three: 1) consanguinity is the basic criterion; 2) consanguinity is no criterion; 3) consanguinity is only one criterion among many.

I shall clarify these preliminary points by illustrations from different parts of Oceania.

OCEANIC NOTIONS ABOUT KINSHIP AND FRIENDSHIP

171 Theoretically, we might expect to find in all societies three different systems of discourse about social associations: a kinship system, a friendship system, and the more comprehensive *philia* system. In practice, we may find a good deal of overlapping in specific societies, but even then, the distinction between the three systems may prove to be analytically profitable.

For instance, some societies do not have a distinctive membership group outside the kin group where *philia* relations are maintained. An example

171 Rich data on the symbolism defining the *philia* relationship in religio-philosophic terms are available in Strathern (1971). I have already expounded elsewhere (Schwimmer, 1972) that the theme of *philia* (its establishment, disruption, and restoration) is a central issue in New Guinean thought and that it enters into many levels of culture: geographical, zoological, social, magical, religious, and aesthetic.

THE OROKAIVA CASE

121 Up to this point, I have given some empirical illustrations of simple analytical distinctions. Thus, we can no longer take for granted that the *philia* universe always consists of friends and kin for it may define all friends as kin (as in the Maori) or vice versa (as in the Telefolmin). On the other hand, there are societies where the distinction friend/kin is of subordinate importance because the *philia* universe is classified by different criteria such as cooperative/competitive (Tangu) or real/feeble (South Fore). Then again, there are societies where consanguinity is a distinctive criterion within the *philia* system, but only in combination with other factors (Melpa).

572 If the Orokaiva case, of which a description now follows, seems more
complex than the preceding ones, this may be attributed, at least to some
171 extent, to my method of presentation. While most Oceanic sources are too
brief on the subject of friendship to enable us to go beyond summary statements,[5] the Orokaiva facts resemble those reported by Burridge (1957a; 1969) in many respects. But in some respects, the Orokaiva system seems more explicit. It differs from Tangu in having a slightly stronger patrilineal emphasis, less emphasis on collateral relations, and a stronger avoidance of
[582] affines. The Orokaiva marriage system, reported elsewhere (Schwimmer,
1970a), seems more highly structured. These factors are probably related
[182] to higher population density, larger social networks, higher soil fertility, and
more pervasive warfare.

131 The Orokaiva (population 25,000) live on the fertile volcanic loam of
the Mount Lamington foothills. Their main crop of taro once supported
161 villages of six to twelve families, although now, the villages are often larger
621 mainly because of pressure from the Australian administration. Williams
602 (1928, 1930)[6] characterized the society as patrilineal with a strong bilateral emphasis. Women hold a relatively high position which is maintained

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562 [5] Early accounts of New Guinea friendship relations are in Mead (1938) and Williams (1940). Later accounts of a *namel* type of relationship are in Pouwer (1955) and Hogbin (1964) and of the *otavo* type in Heider (1970), Oliver (1955), Schoorl (n.d.). The "resemblance friends" found by Williams among the Elema are not unlike the fictive *simbo* of the Orokaiva.

[6] Other useful sources on Orokaiva social organization are Crocombe and Hogbin (1963), Rimoldi (1966), Krinks and Waddell (1968), Schwimmer (1967, 1969, 1970a, 1970b, 1970c, 1972).

562 through the close brother-sister links that endure after marriage and that are
expressed through strong links between sister's son and mother's brother.
614 Genealogies are brief, but the Orokaiva classify themselves into supposedly
agnatic units by grouping together persons who respect the same plant
[582] emblem which is treated as an ancestor. Clans are dispersed, and although
local clan groups continue relations after dispersal, they soon begin to
intermarry.

602 In the Orokaiva *philia* system, the distinction consanguine/non-consanguine occurs, but only feebly. Far more important are three cross-cutting categories which may be briefly summarized as follows: 1) the cooperative alliance, centred on sibling and parental bonds; 2) the competitive group exchange system, centred on relations with affines and uterines; 3) the total interdependence relations existing between spouses and cross-cousins.

Previously (Schwimmer, 1970a; 1970b; 1972), I have shown that the Orokaiva kinship universe may be viewed as made up of these three main components. In particular, the symbolization of the conjugal bond does not coincide with either the cooperative or the competitive mode, but is expressed in the symbiosis of plants (such as coconut and areca) which exhibit both binary opposition and total interdependence relationships. The cross-cousin bond has the same components and, at least in ideology, a comparable strength.

●121 In this essay, I shall present data on the friendship universe and show that
572 Orokaiva have institutionalized friendships of several types, some of which
602 are hereditary. I hope to show that each type of friendship corresponds to
one of the basic categories of the kin universe. Thus, if my argument is correct, the same categories would hold for the entire *philia* universe of which kinship and friendship would become homomorphous components. Friendship would not have one specific idiom, but a set of idioms which have already been stated in *philia* ideology and symbolized in the religio-philosophic system. Friendship thus becomes a dynamic dimension of kinship. Superficially, it looks like a minor supplement of the kinship system, but it is essential in filling ever-widening lacunae in the kinship system and preventing progressive entropy.

Orokaiva Kin and Friendship Idioms

101 Between the districts where the data were collected, there are slight differences
in dialect (Hohorita in the Sangara district and Sivepe in the Sasembata
197 district), including the way kin and friendship terms are used. The Sangara
601 and Sasembata people are tribe-like groups, hereditary enemies, with seemingly
similar social organizations.

Provisionally, it is best to regard the Sangara and Sasembata nomen-
601 clatures as variants of the same system. I shall not deal here with intergenerational terminology since it is mainly used in a familial context, whereas

572 602 grasp of certain fundamental psychological principles. For instance, the Orokaiva classification scheme relates the *simbo* kind of friendship symbolically to the marriage bond which, indeed, has the same quality of total interdependence between persons whose consanguineal links are distant, if present at all. Some friendships are indeed of this kind but not all: the Orokaiva system reflects this fact in that some non-kin relationships are classified as *simbo* while others are classified as *apa/eambo*, *otavo*, and so on.

If we cannot distinguish friendship from kinship on the basis of the content (the role attributes) of relationships, it is possible to make a distinction of a formal kind.[10] One characteristic of all friendship relations is that the [601] partners are kept free of ritual avoidances such as those between affines. The wife of a sibling type of friend is given a sibling term of address; the wife of a *simbo* type of friend is herself classified as *simbo*. Another formal characteristic of all these relations is that they are equivalent, but additional to the kinship links of the same type.

[182] The continual threat of warfare and disruptive disputes impels persons to maintain a number of residence and alliance options in many places. Friendships develop especially where the kin universe is inadequate in supplying these options and leaves dangerous gaps in the network; Orokaiva friendship patches the gaps in this network. This seems a humble and subsidiary role indeed. Nonetheless, the existence of a regular mechanism to fill these gaps makes a crucial difference to the nature of the total system. The fact that there is an institutionalized freedom of recruitment of members to each of the *philia* categories opens up the system and gives it a dynamic flexibility. Ascriptive criteria need never fully determine membership groups because a dimension of freedom in recruitment is given by the friendship customs.

[177] [609] This fact offers a useful beginning for an analysis of the relations between Orokaiva and Europeans, as the Orokaiva system had from the beginning certain social concepts which enabled them to fit the Europeans into their scheme of social relations. The fact that they are strangers does not in itself leave them out of social recognition. Time does not permit this line of analysis, but it is worth remarking that in the absence of a friendship category, Orokaiva would not be able to adapt themselves as easily to the modern type of intercourse with other tribes and other races. The Orokaiva never had a truly closed society. They had rules for setting up relations with strangers, and these relations included marriages, as I have shown elsewhere (Schwimmer, 1970a).

121 If we now turn from the Orokaiva case to more general questions regarding friendship, we may suggest that friendship is best regarded as a residual category within the *philia* universe, in that any *philia* universe must contain a regular process for the recruitment of strangers. Blau (1964) has described the psychological aspect of this process. The present essay has been

[10] I am using "form" and "content" in the same sense as Levi-Strauss (1958).

121 concerned with the syncronic structural aspect. To set up a friendship with a stranger is to set up an irresolvable paradox, for the Other remains a stranger (autonomous, unpredictable, and always apt to withdraw; see Paine, this volume, pp. 117–37) while at the same time claiming and receiving the benefits bestowed by the *philia* universe. How does man manage this paradox?

Our analysis hints at the solution to this problem. Every culture sets up its own system of classification within the *philia* universe, and the rules prevailing within each category are buttressed by mythology, ritual, and moral philosophy. These rules are thoroughly learned and symbolized. I would suggest that the friendship relation is modelled after the most appropriate of the available *philia* categories. The obligations laid upon kinsmen may not be as fully exacted from these recruits, but the general pattern of the relationship follows the principles of one of the categories. To show that this happens in our own society, or in any other, would require a detailed analysis that cannot be undertaken here. But we may find that the friends of whom our spouses are especially jealous belong to the type modelled after the conjugal relationship (even though, like the Orokaiva *simbo*, the friends may be of the same sex).

It may happen, as in our own society, that friends are far more numerous than recognized consanguines. Yet it still seems that the models man uses in conceptualizing friendship relations derive from the basic categories of his *philia* system, and these basic categories tend to be built out of the symbols of kinship. How do friends differ from kinsmen? I suggest it is mainly in the fact that friends are raw recruits to the *philia* system; special efforts are needed to attract them and hold them, and special processes lead to friendships being broken and restored. For instance, we exact fewer obligations from our friends and accord them fewer rights than we grant to the "true" members of the same category of the *philia* system.

We need friends because in the complex lives we lead, the ascriptive members of the *philia* system often cannot provide the benefits for which we look from a particular *philia* category. Thus, fresh relations with strangers are undertaken to provide us with allies in areas where we need allies and where we would otherwise be alone. But for such gratification, we would not seek friends. We enjoy the openness of our social universe. However, open or closed, our universe is limited to a small range of basic relationship patterns present in our conceptualization of kin patterns.

If historical developments such as urbanization and industrialization have added to this basic repertoire, what could be the nature of such additions? Certainly the Aristotelian model of the "good friendship" (Paine, this volume, pp. 1–14) cannot be claimed as a modern invention. My Maori and Papuan informants were able to describe to me in detail their experiences with this kind of *philia*, often involving a father or uncle or elder brother.

[pp 71-145 not processed]

STRENGTHENING THE STRUCTURAL METHOD

Objects of Mediation: Myth and Praxis

BY ERIK SCHWIMMER

The study of material culture formed an important part of anthropology until fairly recently. It used to be considered a proper part of an ethnographer's work to come back from the field with a good catalogue of cultivated plants and objects in common use, together with a full description of their mode of manufacture. Nowadays few ethnographers feel an obligation to carry on such systematic fact collecting, for they go to the field with a "problem." They will collect facts meticulously, but only if it helps to solve their "problem." As a result, records of material culture have fallen off.

Over the last few years, the emphasis on material culture has been on the increase in several schools of anthropology. Cultural ecologists have been meticulous in collecting such material culture data as are relevant to their input-output analyses. Ethnoscientists have been equally meticulous when compiling systems of classification of plants, animals, ritual activities, and processes of manufacture. The structuralist method, with its em-

phasis on the "logic of the concrete," is equally insistent on pre- 121
cision in matters of material culture, because in the analysis of
symbols it often happens that important distinctions are made
between species, varieties, subvarieties, methods of food preparation, of the manufacture of objects, and the like.

Quite apart from this concern with meticulous classification, componential analysis, and lexical-semantic relations, it seems to me profitable to turn to the semiotics of material objects, especially if the field of connotation and denotation crosscuts numerous levels of conceptualization. There are some objects in every culture which may almost be regarded as "total phenomena" in the Maussian sense: they are at once of economic value, expressive of social relations, ploys in a political strategy, and religious symbols. They also appear as the subjects of myths. As a general rule, they are utilized as objects of exchange, which explains why they are as multivalent as exchange itself.

At least part of their significance in anthropology lies in their capability to link the levels of myth and ritual. The best way of explaining what I mean by this suggestion is to give some instances of semiotic analyses of objects which may be called "total phenomena," and include in these analyses the levels of both myth and ritual. Their role as "logical operators" linking these levels will then become obvious. Though my argument draws on a wide range of structuralist literature, the most important sources are Lévi-Strauss' introduction to Mauss' *Sociologie et anthropologie* (Lévi-Strauss 1950) and the Finale of *L'Homme Nu* (1971).

The ethnographic data are from the Orokaiva, a tribe in the 101
northern district of Papua, where I did fieldwork for one year
in 1966–1967 and for another three months in 1970.[1] The Oro- 131
kaiva live on the fertile slopes of Mount Lamington. They are
swidden agriculturists, whose main crop is taro, while yam, sweet 241
potato, sago, sugar cane, coconut, and numerous other nuts, as
well as latterly German taro are subsidiary crops. Areca grows
in most of the district. The population of 25,000 is very dense 161
on the actual slopes of the volcano, sparser in the riverine areas. 361
The kinship system is patrilineal, with a strong bilateral empha- 602
sis. I have given a detailed description of the various forms of

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corresponded to restricted exchange, the taro network corre- 824
sponds to a complex system of generalized exchange. We find 571
both these types of pattern in the Orokaiva marriage system;
we find them again in the exchange of objects other than women. 431

To a large extent, these hierarchies are formed by free choice. Both sides are able to regulate the degree of intimacy by speeding up or slowing down the rate of taro gifts. While thus the taro network offers a good deal of opportunity for subtle *political* manipulation, one crucial criterion is missing from the taro network that is required in a political *system:* conflict is never expressed in terms of taro, except in one case, to which I shall refer below. The fact of not receiving a gift of cooked taro is never, by itself, a *casus belli,* but only a sign of coolness. It may signify no more than a development in a relationship from intimacy to mere amity. It is unlikely to cause anger, unless there are other sources of conflict at the same time.

Male taro gifts, occurring in the context of a feast, should according to the rules not be competitive in quantity. A visiting village expects to receive in return no more and no less than what it has given. If the other side gives more than it has received, this is regarded as an act of hostility. One cannot compare such an act to the potlatch behavior of the Indians or Polynesians, because it is a violation of the Orokaiva rules—a provocation that frequently ends in actual war. On the level of ideology, it is still valid to say that taro gifts can be used, as ritual statements, only to express pseudo-commensality, intimacy, and affection. A quite different rule says that any excessive return gift (whether of taro or something else) serves to express hostility. I shall return to this point elsewhere (Schwimmer, 1974).

CONCLUSION

The purpose of this essay will have been achieved if I have been 121 ●
able to show how objects, in such societies as the Orokaiva 824
one, are "total phenomena," or, perhaps more accurately, multi- 431
valent phenomena. Certainly one understands little of the
Orokaiva way of life if one does not perceive that a taro, for

instance, is not just a food, or an economic value, but also a 121
kinsman, also a form of power, also a sacrament. 824

In a more theoretical vein, we may regard this essay as a 431
corroboration of two remarkable essays by Marshall Sahlins (1968, 1970) in which he elucidated the philosophy of Marcel Mauss and the Maori concept of *hau*. With some modifications, required to fit Orokaiva rather than Maori thought, we can say that a gift object such as a taro has a certain potency which enables it to perform an otherwise impossible act, such as convert an enemy into a friend. During the first stage of the transaction, when the taro, identified with the *vegetable* form of Totoima, is offered up to the marauder (= enemy, guest), the host, likewise identified with the taro, parts with it irrevocably. It is then snatched by the guest, who eats it and thus enters into communion with the host, now identified with Totoima. The force that compels the making of a return gift becomes effective by the act of communion. As Sahlins rightly argued, the transaction becomes meaningful only if it is considered within the context of the state of war which, in the absence of this sacrament, would prevail between the partners.

A question of some difficulty is the relation between the 121
Totoima myth and the taro, coconut and areca rituals. I have proceeded in this essay without distinguishing what is conventionally known as mythology from what is conventionally known as ritual. Thus a key element in the *mythological* analysis was the fact that there are ritual ways of giving away raw and cooked taro. In this respect I followed a distinction which was recently (1971:598) proposed by Lévi-Strauss, namely, between "explicit" and "implicit" mythology. He argues that many mythical representations exist only in the state of notes, sketches, or fragments scattered in glosses and exegeses which appear in the context of ritual. He describes such representations, in other words, the cognitive aspect of ritual, as "implicit mythology."

Lévi-Strauss would thus restrict rather narrowly the scope of the ritual level to what would appear to be systems of paralinguistic signs in a sacred (or at least the opposite of everyday) context. By imposing this restriction, Lévi-Strauss pointed at a weakness in much writing about ritual (including the present essay) in that gestures, tone of voice, the choice and manipulation of ritual objects tend to be neglected in favor of what he calls "implicit mythology." Yet, after admitting this weakness, we may still retain the point with which we started: an analysis of the semiotics such as coconut, areca, taro presents the Melanesian world in its concreteness. Without fragmenting the ethnographic data into preconceived "aspects" of society, it brings out from the start cognitive categories implicit in the Orokaiva data. Unlike the ethnoscience approach, the structuralist approach followed here aims at the building of models comparable to other models of the same family. In the present essay, only one society was analyzed, but anyone who knows Oceanic myth can see many parallels of the man-killing coconut girl, corresponding to ritual in which woman appears as dangerous and a source of pollution.[4] My data on the raw/cooked opposition are a variation of the main theme explored by Lévi-Strauss in *Mythologiques* (1964, 1967, 1968, 1971). 121

Finally, even if we restrict narrowly the scope of the ritual level, we must regard the magical act of offering up a gift as distinct from the myth which explains this act. I do not know whether we should here refer to levels of action and thought, of *vécu* and *conçu*, or of network and code structure. Whatever term we use, we would agree with Malinowski that, from one viewpoint at least, the myth may be regarded as a charter of the act. If the anthropologist asks the informants, "Why the act?," they will quote the myth; or when they tell the myth, they will conclude with a remark that it explains certain customary actions of the present time. Yet, as the present essay has clearly shown, the divergence between code and network structures is too basic to be ignored. As it was merely my purpose to introduce the subject of the ethnography of objects, I have dealt with both aspects and showed their complementarity; but this was at the cost of leaving both code and network analysis in a provisional state.

NOTES

101 1. The classic works on the Orokaiva are Williams (1928, 1930).
114 Useful studies in Orokaiva swidden agriculture are Crocombe
and Hogbin (1963), Rimoldi (1966), Krinks and Waddell
(1968). For my own studies on Orokaiva culture, see Schwimmer (1967, 1969, 1972, 1974, and n.d.).

114 2. Most of the present study was done in Paris in 1970 and distrib-
uted in mimeographed form by the Laboratoire d'Anthropologie
128 Sociale under the title "The Ideology of Exchange." I should like
to express my gratitude to Professor Lévi-Strauss, Drs. Godelier and Pouillon, and the other members of the staff for their hospitality and encouragement. My wife, Mrs. Ziska Schwimmer, worked with me in the field on the collection of data and later with their analysis.

824 3. "A principle of gradation by which elements are related to the
431 whole of which they form part."

4. Professor Lévi-Strauss suggested to me a most interesting rela-
tionship between this myth and the Polynesian Maui cycle. Maui
121 was killed by a "Woman of Darkness," Maori: Hinenuiotepo.

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THE SELF AND THE PRODUCT:

Concepts of Work in Comparative Perspective

ERIK SCHWIMMER

Introduction[1]

●121 The cross-cultural comparison of concepts is part of the anthropologist's trade. Whatever the concept, we find ourselves asking whether anything resembling it exists among the people we study. The concept presents itself very often in English: law, government, religion, friendship, reciprocity. A school of thought often arises which holds that the concept is not universal but confined to a limited set of cultures, inevitably including our own. Such a suggestion is usually opposed by others who propose definitions of the concepts so as to make them look universal. The concept of *work* is clearly of that type.

There are good reasons for thinking that this concept is a product of 18th century Europe and the industrial revolution. Work as a concept is based on the assumption that, from a certain viewpoint, all economically useful activities are fully comparable by a yardstick transcending their diversity, in other words, that labour has become a commodity and that the technical and administrative direction of that labour has become part of the same kind of commodity. This is a perspective with which we have become familiar through Mandeville, political economy and Marxism (Baudrillard 1973;
[461] Dumont 1977). On the other hand, it has been shown that the
Ancient Greeks had no corresponding concept (Vernant 1965) and
[177] it is not difficult to show that the Melanesians did not have it either,
until they came into contact with western capitalism. One of my Orokaiva informants was categorical on this point: "The people of olden times," he said, "did not take up work (*pure*) for it was only Jesus Christ who gave them work (*pure*) to take up."[2]

On the other hand, some very prominent authors have presented 'work' as a universal concept. One of them was Karl Marx to whom the concept 'work' was just as much a universal as man's supposedly perpetual 'transformation of nature to human ends'. In his theory all modes of production have their 'labour force'; what he opposes is

[p.287]

that capitalism has turned this labour force into a 'commodity'. In that state of communism, work will become "le premier besoin vital" (Manuscrit de 44). As for Freud, when he was asked (according to an anecdote) what should be the main preoccupations of the normal healthy adult, he answered: "Lieben und Arbeiten". In this respect he appears to have taken the same view as Hesiod, in whose world view "la fécondité et le travail apparaissent comme deux fonctions opposées et complémentaires" (Vernant 1965: 188).

Faced with such complications, two possibilities are open to anthropologists. The solution most frequently adopted is to avoid the difficulty and to rely, instead, on concepts that are easier to define and operate. Thus economic anthropologists working in Melanesia have given up measuring labour force participation and concentrate instead on the concept of 'time allocation' as a measure of socio-economic relationships (Lawrence 1964), cost and value (Salisbury 1962; Belshaw 1949, Appendix IX) or price (Godelier 1973).[3] Another possible solution, which is beginning to find adherents in anthropology, is to subject the concept to what one might call comparative semiotic analysis.

This solution was, in fact, suggested by Sir Raymond Firth at the present conference when he said: "it is pertinent for anthropologists to enquire more systematically into indigenous definitions of work . . .". What would such an enquiry involve? As not all cultures have a concept of work, there are some cultures which, strictly speaking, could not be called upon to define it.

There are some simple, practical ways of coping with this problem. Michel Panoff, for instance, in a paper presenting concepts of work among the Maenge of New Britain (1977), suggested glossing the term 'work' by "des activités visant à la production de l'utile" (p. 7). Undoubtedly this provided an operational definition. On the other hand, as Panoff himself acknowledges, terms like 'production' and 'useful' raise problems of precisely the same order as a term like 'work'. Cultures which do not differentiate 'economics' as a category from political, social, religious etc, phenomena could not very well class together some of their activities (but not others) as 'production' and even less could they subdivide the category so obtained into useful and useless. Panoff counters: "On ne commencerait jamais s'il fallait, chaque fois, réinventer totalement le vocabulaire".

Needless to say, Panoff had to pay the price of his haste. Thus, he finds a Maenge equivalent for 'activities' in gardening (*kuma*) and tells us they take, on the average, four hours per day. Next, he proceeds to admit that his informants do not conceptually

121 distinguish 'productive' from other activities (such as sleeping, eating, etc.). On the other hand, they do have a concept for 'toil' (*milali*). Evidently, they cannot say, in their language, whether they are 'working' but they are perfectly able to say whether they are 'toiling'. Moreover, in transactions with affines (p. 11) a man may sometimes claim compensation for *milali* he has done in an affine's garden, but he could never claim compensation for *kuma*. After all this, one wonders whether the latter word is fully covered by the gloss 'une dépense d'énergie' (p. 15).[4]

Panoff is correct in saying that it would be futile, every time a concept is explored, to reinvent the 'vocabulary'. I suppose he means by this the finding of an ingenious phrasing that gives an impression of universality. On the other hand, a semiotic investigation of a concept ought to tell us what ontological commitments are normally implied when members of the culture in question refer to the concept. Such implications may not become fully clear unless one knows the myths, rituals, ideology, behavioural norms of the culture in which the concept is embedded.

In other words, there is a corpus of information that must be presented before we can have even an approximately clear idea about what a Maenge means when he uses the concept *kuma*. No doubt such understanding will always be approximate and a 'full' investigation would be of infinite length. As in any ethnographic investigation, it would be professional practice to continue enlarging the corpus as long as this continues to add appreciably to our understanding of the concept and to end the investigation when a certain degree of clarity has been obtained and returns begin to diminish.

With regard to the concept of 'work', the first such investigation was not, to my knowledge, made by an anthropologist, but by a classical scholar, Jean-Pierre Vernant, in a series of papers brought together under the title *Le travail et la pensée technique* (Vernant 1965; 183–247). It will be useful briefly to review these papers both from a comparative and a methodological point of view.

Concepts of Work in Ancient Greece

Vernant's central interest lies not so much in agricultural work but in concepts of craftsmanship (ΤΕΧΝΗ) and of what one might roughly call practical intelligence (ΜΗΤΙΣ). To the latter topic he has recently devoted a book-length study (Detienne and Vernant 1974), with the special purpose of giving its due to a form of intelligence that our own culture has tended to grievously undervalue in favour of theoretical and literary intelligence. This neglect appears to Vernant (a Marxist) like an aspect of class warfare in western society, though its ideological armoury was forged, without doubt, in Ancient Greece, more particularly by Plato.

Even though Vernant's central interest in the 1965 compilation lies in the concept ΤΕΧΝΗ, he includes agricultural labour in – as one might say – his semiotic domain. It is for this reason that comparison of his analysis with Melanesian data (the focus of my present study) becomes highly relevant. Vernant nowhere explicitly defines his semiotic domain but from internal evidence I suggest it comes down to Prometheus' gift to man. Marxist though Vernant may be, he does not fall into the trap of defining his enquiry in other than Hellenic terms. Use-value, exchange-value and alienation are used as tools of analysis, not as boundaries of a semiotic domain. Though Prometheus, in Attica at least, was specifically the god of fire, pottery and metallurgy, and was specifically linked with the social category of artisans, the semiotic domain defined by Prometheus must include all the implications, as perceived by Ancient Greeks, of Prometheus' conflict with Zeus (1965: 186).

From this viewpoint, the Prometheus figure is as relevant to agriculturists as to artisans, a fact that is reflected in Hesiod's treatment of Prometheus in his *Theogony* as well as in *Works and Days.*[5] Hesiod, in fact, presented the deity mainly, in the latter work, as the god of the peasants and thus linked with Pandora, celebrated as goddess of fertility.

It is largely in Hesiod's terms that Vernant presents to us what we may call the Greek peasant's concept of work. While we may regret the paucity of informants, Hesiod's credentials are satisfactory: both he and his contentious brother are genuine peasants whose father had come to Boeotia destitute. The myths on which Hesiod's conceptual system rests are specifically those of his social class in a society where "every social class has myths of its own" (Jaeger 1946: 61).

In this, context, then, we are offered a definition of ΕΡΓΟΝ and its related verb ΕΡΓΑΖΕΣΘΑΙ. The verb

> paraît spécialiser son emploi dans deux secteurs de la vie économique: l'activité agricole, les travaux des champs, ΤΑ ΕΡΓΑ et, à l'autre pôle, l'activité financière . . .

It has some more general meanings besides, but cannot be substituted as in English for the notion of action (ΠΡΑΤΤΕΙΝ) or the notion of manufacture (ΠΟΙΕΙΝ) (ibid. 198). These are matters of semantic detail: if we wish to grasp more deeply the meaning of a term such

● 121 as ΕΡΓΟΝ, it can emerge only from Hesiod's account of the myth of the conflict between Zeus and Prometheus which explains both the trouble and toil inseparable from human life and the origin of culinary fire, source of man's nurture and survival. The concept of toil (ΠΟΝΟΣ) is therefore traced directly to Prometheus.

The conflict between deities, as told in Hesiod's myth, ends in a compact whereby the gods promise riches through labour and toil and whereby those who labour become a thousand times dearer to the immortals. Work (sweat of the brow) becomes a way to virtue (ΑΡΕΤΗ), a term which expresses not only a moral quality but also (in Greek) welfare, success, repute.

Several other key concepts are likewise defined in this system, in direct relation to the concept of work. For instance, strife (ΕΡΙΣ) is defined in terms of the strife between Prometheus and Zeus, and therefore as ambivalent – producing both good and evil. Strife or struggle, in its positive aspect, is labour in the fields whereas, in its negative aspect ΕΡΙΣ acts by violence, lies and injustice. It is thus that the Prometheus myth becomes linked to Hesiod's key concepts of ΔΙΚΗ, translated by Vernant as 'justice' and ΥΒΡΙΣ (*dèmesure*). The argument appears to be that in view of the primacy of strife, man faces the alternatives of settling by submitting to arbitration and accepting compensation or judgement; or of proudly rejecting such a settlement and thus rejecting the intervention of the gods, relying on his own strength instead (Vernant 1965: 39–40).[6]

It is by tracing connections of this kind that we begin to understand what 'agricultural activity' would connote in the mind of a Greek peasant. 'Work' in such a culture implies a relationship with woman, with fertility, with disease (ΠΑΝΔΟΡΑ), an experience of toil, trouble, misfortune (ΠΟΝΟΣ), with culinary fire, with contentions and litigations, and finally also, with a belief in moral values and their material efficacy. Up to this point we may expect to find rather similar concepts in Melanesia, even though their cognitive organization is somewhat different.

Vernant shows that the cultivator's concept of work, briefly sketched above, was in opposition to the artisan's concept of making or creating (vb. ΠΟΙΕΙΝ noun ΠΟΙΗΣΙΣ). While the peasant, as a strong man and toiler, could always take arms and turn his ΑΡΕΤΗ towards the defence of his own country, the artisan was by his mode of life far removed from toil or danger. Agriculture, to the Greeks, was no craft. Trades have secrets but the earth has no secrets. All it demands is 'husbandry' (ΕΠΙΜΕΛΕΙΑ).

Vernant argues that this difference between tradesman and peasant is due to the fact that "l'activité de l'artisan appartient à un domaine ou s'exerce en Grèce une pensée déjà positive" while agriculture remains integrated within a system of religious representations. Farming is not considered as transformation of nature to human ends, but as participation in a supra-human order which is natural and divine at the same time (ibid. 204–205).

It is interesting that Vernant is nonetheless not presenting trades as fully secularized. The model he presents is highly relevant even in a study focussed on swidden cultivators where little specialization of work is found, because many of the characteristics here attributed exclusively to artisanship will be found structurally similar to concepts developed by these cultivators in a purely agricultural context. The model, very briefly summarized here, operates on two levels.

The first level is that of the artisan's customer who pays for the work and who, by commissioning it, causes it to be done. Thus, the practice of artisanship begins when the principal actor (who is of course the customer, not the craftsman) perceives a need (ΧΡΕΙΑ) for the object. The next step is for the principal actor (again, not the craftsman) to decide upon the plan or design or templet of the object (ΕΙΔΟΣ), even though here the customer and prospective user has to respect the traditions and the limitations of the craft in formulating his commission. The customer's right to decision is justified ideologically by the fact that he alone will have the use (ΧΡΗΣΙΣ) of the object and will therefore know what requirements it has to satisfy; he will be the best judge of it.

Vernant demonstrates that throughout this transaction, it is the user who acts independently and freely on his own behalf (ΠΡΑΞΙΣ) and it is the craftsman who obeys. The technical function (ΠΟΙΗΣΙΣ) is thus in a subordinate position. This does not mean, however, that craft, in Greek ideology, was equated to a purely mechanical operation, as it is in the contemporary West. The category 'craftsman' (ΔΗΜΙΟΥΡΓΟΣ) comprises, apart from wood- and metal-workers, also diviners, heralds, healers, poets. Divine craftsmen, in Greek mythology, helped to create the world. They require not only specialized knowledge, apprenticeship, trade secrets, but also a particular power (ΔΥΝΑΜΙΣ) inherent in individuals as natural qualities (ibid. 212). By means of this special power, craftsmen may give material form to their 'model' (ΕΙΔΟΣ) of good health or of a house, but in the end the artifact is handed over totally to the person who commissioned it, so that the maker retains no connection with it: 'un ouvrage extérieur à l'artisan et étranger à l'activité qui l'a produite' (ibid.: 223).

Vernant reaches two conclusions: the Greek craftsman was producing use-values rather than exchange values;[7] he was 'alienated' from his labour in the sense of losing all control over it when finished. In this last respect he was evidently unlike the Greek peasant as well as unlike the "active man" who commissioned and used what the craftsman produced.

From the viewpoint of Marxist theory, the position of the Greek craftsman is certainly somewhat special. In a mode of production where labour is a generalized commodity and where the division of labour serves merely to improve efficiency in the production of exchange values, one may well predict 'alienation' of the labour force. But how can alienation occur when the creative power of each individual craftsman is freely acknowledged and when the full unfolding of this creativity is hampered by no managerial constraints? The fact that the product is intended to be used by some alter would not in itself cause alienation, or else no craftsman, in the wide sense intended by Vernant could even be free of it. Are all physicians alienated unless they heal themselves? Nor can we simply put the phenomenon down to relations between social classes because there would be no class difference between, for instance, a flute player and a maker of flutes.

It would be easier to believe that 'alienation' refers merely to a particular relation of production rather than to a relation between categories of persons, because, after all, a flute player is not only a user of flutes but also a professional in a musical craft. User and creator roles are normally combined in the same person.

Is there something, then, in the Greek concept of craftsmanship that is distinctive to Greece and causes alienation? This is a question raised but not answered in Vernant's essay of 1965. It is raised again and more nearly answered in the Detienne-Vernant study of 1974. Whatever the Greek data eventually yield about this question, it is plain that technical intelligence is still grossly undervalued today while abstract intelligence is overvalued. It is also plain that the undervaluing of technical intelligence became, somewhere along the road, part of the ideology of the western ruling classes.

However, this be, alienation can clearly not be identified with a particular mode of production or a particular criterion of value. Not only is alienation apt to arise in societies where exchange values are unknown but its opposite, identification, is by no means absent even in a capitalist mode of production.

Works of Art

●/121 To test this possibility, let us consider a major subculture of capitalism, namely that of literature, music and the arts. Here, work is manifestly being converted into exchange rather than use values. Works of art today, even if 'made for' or 'dedicated to' particular persons, are not really made primarily for their use or personal edification, but rather a kind of communication between the maker and the world or universe. Unlike the craftsmen of Ancient Greece, they do not (except reluctantly) produce work after a design imposed by their paymasters; they do not subscribe to any 'alienating' reduction of their work to 'average labour'. Moreover, on the juridical level, they have continuing rights in the product of their labour even if they 'sell' it – rights that are codified and enforceable in law. They live by the market value – the exchange value – of this labour. Clearly we have here a system that combines exchange value with identification.

This configuration: identification + exchange value is not, of course, unproblematical. What is a fair price for a poem or painting? In practice, this depends entirely on reputation. In other words, it is normal to spend several years in a garret until one has acquired sufficient reputation to be able to claim a rate of remuneration not less than, say, the basic wage for the 'socially necessary labour time' that goes into one's poems or paintings.

There is a vast perceived difference between the various value estimations: the exchange value (very low), the use value (very high if the work is 'good') and the value based on socially necessary labour time, i.e. what the poet or painter would receive if he became a 'government artist' in a Marxist-controlled economy.

If the artist wishes to avoid starving in a garret, he can always take a 'job', i.e. sell his labour not as an artist but as a teacher or clerk or carpenter or whatever. This labour will in his estimation have much less use value than his art, but it has far greater exchange value. He will tend to feel alienated from his 'job' whatever it is [461] but identified with the art which is his 'real' work. Sedentarized Indian hunters in Canada and urbanized Orokaiva taro-cultivators see a rather similar relationship between their 'jobs' and their 'real work'[8] (cf. also Cohen, this volume).

Towards a Melanesian Definition of 'Work'

The present enquiry concentrates on the analysis of concepts of work found in a specific society, the Orokaiva of the Northern Province of Papua New Guinea. These concepts, described as an indigenous semiotic system, are presented with reference to two oppositions assumed to be universal or at least to be suitable for cross-cultural study.[9]

Vernant's study already implied such a double perspective: he developed the folk model upon a mythological frame while including ethical, ritual and organizational specifications. Next, he interpreted this model in terms of

a) the extent to which the yield of labour was a market commodity (an exchange value, EV) as opposed to serving specifically to satisfy the needs of a particular user (a use value, UV) (cf. Vernant 1965: 222);

b) the extent to which the maker was 'alienated' from the work he produced.

Vernant did not fail to note (ibid., footnote) that alienation, in the Marxist sense, is not supposed to come into being except in a mode of production where commodity production is the dominant category. He tried to overcome this difficulty by presenting the social formation of Ancient Greece as transitional between what one may call elliptically a UV and an EV formation. If, however, we consider a wider sample of societies than Vernant, we soon recognize that alienation existed in this world long before there were any Greek tradesmen, for it is present in the simplest social formations.

Likewise, the implied opposite of 'alienation', viz. identification between man and his work, is by no means confined to formations where the use value category predominates, as our example of the contemporary art world has demonstrated. The present paper proposes that it is useful to study work concepts not just with the aid of the one opposition UV/EV as Vernant has done, but with the aid of a second, independent opposition between identification and alienation (I/A).

This theoretical innovation requires, however, that we first redefine, for our purpose, the rather vague term 'identification'. Our starting point, in defining occupational identifications, is Lévi-Strauss' discussion of caste in *La pensée sauvage* (1962) after the analogy of totemism. Here the occupational identity of castes and sub-castes is signified by a set of rules and prohibitions setting up ideological boundaries between them while implying their interdependence. It comprises many levels of conceptualisation: social, culinary, moral, philosophical as well as occupational.

Two papers develop further our understanding of identity as arising out of the *karma* of occupational castes in India. Searle-Chatterjee's (this volume) analysis of polluted castes shows that occupational identity implies a pattern of collective ritual and

121 psychological characteristics. Not only the work but also the worker are classified as polluted.[10] Parry's (1979) paper about polluted Brahman caste groups[11] presents their occupation as involving identification ("consubstantiality") with the deceased at funerals. The payment they receive for this act of autopollution is represented as gifts they undertake to transmit to the dead. Parry raises the question that these gifts to the Mahabrahmans are not followed by "counter-prestations" in the sense of Mauss (1924). Might not therefore their pollution result from their thus retaining riches they should have passed on or recompensed? This is an important suggestion which it will be convenient to develop a little further.

Let us first, however, return to Vernant's point that man's occupational identity is closely linked with his fertility and sexuality. It is therefore as normal to identify with the work one does as with the sexual activity one emits. In this respect, we would disagree with Baudrillard (1973) who believes that to identify with one's work is to espouse a "puritan ethic". Alienation would then occur if the self is somehow denied further contact with work done, whether this be in the occupational sphere or whether it concerns children, sexual partners etc. Alienation occurs when the yield of such "production" of the self is taken away by others who retain control over it and who return no equivalent gift.

The occupational task of the two caste groups referred to above is to take away productions of other people's selves. The musician sub-castes make and use exclusively passion-arousing music, thus taking away the equanimity of a man's soul; the Mahabrahmans take away with them the deceased they embody. Both groups are essentially abductors who are polluted because it is their occupational role to alienate.

Now, the question is if and how this concept of alienation, derived from Mauss by Parry, relates to Marx's own concept. Mauss (if we may rely somewhat on Sahlins' (1974) interpretation of his argument) represented exchange as involving three partners; a first donor (A), a first recipient (B) and a second recipient (C) who makes a return gift to B. In Mauss' and Sahlins' discussion, there is no suggestion that A is out to make a profit but only that he claims from B some part or all (it is not clear which) of the yield of his gift. If B makes no such return the original gift is 'alienated' from A. In a formal sense, then, the polluted caste groups are *ex officio* in the position of B.

But let us now consider[12] the position, if A is a worker, B an employer/entrepreneur and C a customer. If C pays a remarkably high price, then by the principle just put forward, A would feel entitled to part or all of this yield, but if B will pay nothing except the minimal wage needed to keep A alive, A will feel alienated. He is not kept informed of the true yield of his labour and is allowed no rights over it. Marx's concept of surplus value and Mauss' concept of yield (*hau*) appear therefore to be homomorphous, though bearing on different modes of production. It is for this reason that we believe that identification and alienation in the meanings used here are truly opposites.

What then is the relation between the two sets of oppositions we have developed here? It appears, in the first instance, to be a difference between types of economy and types of conceptualization. When we contrast formations where UV or EV are dominant, we are contrasting types of economy. When we contrast occupational identification/alienation, we contrast types of conceptualization. In the second instance, we may apply the same distinctions within a social formation having more than one mode of production. The Orokaiva social formation falls quite obviously into that category today. We may thus, within that society, distinguish four systems of work concepts, classifiable by the following properties:[13]

1. identification where UV dominant: congruence
2. alienation where EV dominant: congruence
3. alienation where UV dominant: incongruence
4. identification where EV dominant: incongruence.

Possibilities 1 (the 'traditional' system) and 2 (the 'cash income' sector) are congruent in the sense that the concepts of work they present fit ideologies well adapted to reproduce the respective modes of production. Possibilities 3 and 4 are incongruent in the sense that the concepts of work they present do not fit the ideologies serving to reproduce the respective modes of production, but appear to be part of variant or deviant ideologies. The latter two possibilities are often neglected in analysis, but need to be explored if we are to exhaust the logical possibilities or our semiotic domain. It is by envisaging these two possibilities that Orokaiva may be led to conceive of radical changes in patterns of social relations.

How can we test whether the four possibilities we have generated by purely logical processes have a real existence in the case of the Orokaiva social formation? If each possibility represents a system in the sense of Vernant's analysis, then we ought to be able to find in each one a mythological framework, an ethic, a body of ritual and organization. As we shall see, such a demonstration will meet with little difficulty in respect of possibility 1 (the traditional system, with its deities and myths), possibility 2 (where a dominant role has been allotted to Jesus Christ, as we saw above) or possibility 4 (supported from the outset by the vast Melanesian cargo cult literature). On the other hand, alienation where UV are dominant, is a possibility for which documentation is rare indeed. All we appear to have are sporadic cases of cruel exploitation by Melanesian managers.[14]

Yet, if we take a wider view, such exploitation is no isolated phenomenon. Even in societies lacking slavery, we may find instances of it among the defeated in warfare, and in groups of notable political weakness, ruthlessly exploitable by stronger neighbours. For irrevocably alienated individuals only one hope remains of restoring the balance, namely posthumous salvation which often involves vengeance by the ghost after death. While belief in vengeful ghosts is extremely widespread, there are few ideologies where ghostly vengeance constitutes the chief principle of interpretation of the laws of the universe. One such is the ideology of the Kutubu as presented in much detail by F.E. Williams (1976) where the chief myths, deities and religious practices concern disease caused by such vengeance. These facts do not suffice to set up possibility no. 3 as a system among Orokaiva, but they appear to justify some investigation in the framework of the present investigation of work concepts.[15]

It will be possible to define, for each of the four possibilities, distinctive work concepts, forms of management, fields of specialization in skills and crafts, forms of toil, notions of virtue, a principle of strife. Furthermore, for each possibility there is a separate corpus of knowledge, different operating models, techniques, supra-human powers.

The fact that we end up with four such categories (instead of, say three or five) has no special significance. The categories have been logically generated and provide a possible principle of data sorting. But data sorting has no virtue as such. Our categories have the advantage of showing how a culture reacts to the basic contradictions that exist within it. It forms, not only a plurality of ideologies, but of action systems as well each informed by its own ideology.

While there is no need for semiotic classifications to be binary, they do have to be logical rather than experiential. There is a connection between the contradictions that objectively exist and the concepts that are generated. The main point is that there is not only a traditional and a cash system (and on this everyone will at once agree), but there must also be two intermediary logical forms which come down to a cooperative and an exploitative system. These two systems are the traumas generated by the contradictions

121 between the other two. Their existence is known, but some will not see their cognitive genesis. They tend to arise as they are logically implied by the two dominant ones; anyone who does not like 1 and 2 cannot help but think of 3 or 4 or both.

Identification in the Creation of Use Values

461 When Councillor Colin said that '*pure ari*' did not begin until Jesus Christ (i.e. people did not 'work' before that time) he ignored that *pure ari* in its primary meaning stands for 'to garden' and *pure* is a garden. From an empirical viewpoint we know exactly what goes on in a Sivepe garden, as Waddell has carefully measured it. The daily visit to the garden described by informants as *pure ali* takes a mean of 265 minutes of which 'main task' and 'ancillary tasks' take up in all 44.2% (Waddell and Krinks 1968: 113). The rest is devoted to travel, rest, meals, cooking, washing, other tasks. People always go to the *pure*; they do what they need to do. The amount of 'work' they have does not determine how long they stay. Sometimes they 'work' very hard, sometimes hardly at all.

The gardening tasks are done at a moderate pace which is
pleasurable. Rushing and heavy burdens are avoided when possible,
but when they are necessary they are classified as 'toil' (*pure*
[805] *galha*) and people rest later to make up for it. The only time
measures used are: early morning, midday, afternoon (meaning:
time to go home) and evening-night (meaning: after supper).
[241] Though gardens have a principal crop, mostly taro, the subsidiary
crops, ornamental trees, garden house etc. are charmingly land-
scaped so that the garden is in a sense an artistic creation
(Malinowski 1935; F. Panoff 1969). Whether rows are regular and
what is the general standard of husbandry are very much
[829] individual matters. It is said that by looking at a person's garden
one can read his or her character. Among the Orokaiva the girls
[581] are said always to look at a boy's garden before marrying him. De
Coppet (1976) reports the same for the Are'are of Malaita, except
that it is the girls who are more under scrutiny. The criteria would
partly be the style of the garden, showing a pattern of mind, but
also and largely the size of the garden, the size and the health of
the plants, the quality of the varieties.

241 One could keep on with such description for a long time with-
out coming closer to defining garden work as a concept. Myths
773 and rites prescribe details of the gardening cycle for each of the
824 principal crops while at the same time establishing identification
between grower and crop: taro is a mother; a mother Taro is
invoked; married women think of their taro as their children. The

461 Christ does not, like traditional work, have a palpable virtue such
177 that the good man will succeed at it while the bad man will fail. Anyone at all can succeed at New Guinea wage labour – *wok mani tasol* as it is called in Neo-Melanesian.[22] Yet this money, when it
[436] enters the village gift exchange circuit, will establish claims to status on an equal footing with wealth available only to cultivators with real traditional power (*ivo*).

525 It is this anomaly that appears to have been coped with by the New Guinea gambling system. The game called *laki* (lucky) is
777 supposedly a game of pure chance but if chance is with you it shows that a powerful ancestor is supporting you. Your luck at the game shows your spiritual resources just as luck at gardening shows this. It is the people with weaker ancestors who lose. Medicines are also used to improve luck, but they are secondary. Evidence for supranatural intervention is that the results of the game, instead of being random as one would expect from the rules,
[373] always favour the same individuals. Whether these individuals play honestly I cannot tell, as the game goes on day and night and only a very weak lantern is used at night, my tilley lamp being considered unsuitable.

Laki is played by Orokaiva especially when the coffee proceeds have just been distributed and generally whenever a large number of community members receive money from non-traditional sources simultaneously. Play may continue for several days without interruption, until all the money is cleaned up by a single winner. This redistribution restores the traditional status pattern disturbed by the culture hero Jesus Christ.

525 Playing cards are outlawed in Papua New Guinea; nobody is allowed legally to possess them or to import them. Though this
177 legislation was a response to popular pressure, it was in the churches that the pressure was in fact generated. It is thus hoped that New Guineans will eventually allocate status on the basis of the mere
[554] possession of money. The total inefficacy of this government legislation shows that New Guineans have great difficulty in
[461] accepting this secularized concept of work and status. Magico-religious tests have the function of hallowing money. They also assert the supremacy of traditional work concepts over modern ones.

Alienation in the Creation of Use Values

121 It is especially the French Marxist africanists such as Terray, Meillassoux, Auge,[23] who have alerted us to the prevalence of exploitation in tribal or lineage-societies where anthropologists

121 tended to play down such a possibility. While the concept of exploitation is perhaps more directly relevant to Marxist theory than alienation, it has certain drawbacks that are now widely recognized. Where use-values are predominant it is common practice to set up not so much a division of labour (Vernant has rightly argued one cannot call it that) but rather an allocation of tasks to persons or social categories who are thought to have special competence for them. Thus, as the most common example, certain tasks are allocated on the basis of criteria like age and sex. Now, this is not in itself exploitation though obviously it may well lead to exploitation. We therefore need a criterion, other than that of the task allocation itself, to determine whether exploitation in fact occurs.

I shall press this point by citing one counter-instance. Among
462 the Orokaiva only women are considered competent to harvest.
562 Men never do it and claim that, if they did, the taro supply would
be exhausted too soon. As an exception, they do harvest taro for
feasts, and this exception only goes to confirm that they would
be far too prodigal to act as daily harvesters. Is this just a story
to exploit women? When crops are being marketed, the rule among
Orokaiva is that the men carry the coffee and are paid for the
coffee, but taro and other subsistence vegetables, when taken to
market, are taken by women who also retain the money. Their
right to the produce is maintained not only for the daily food
supply but also when there is money to be earned. Their right
to the product of their labour does not seem to be questioned.
Thus, by the criteria we have been using, Orokaiva women are not
an alienated labour force and it will be seen that *alienation* is
more convenient in an operational sense than the concept of
exploitation, which may be too broad.

While studies of alienation in Melanesia are rare, it is possible
171 to give some indication of the patterns. M. Panoff, in his study
of Maenge suicides (1970), did not question the generally
accepted model of Melanesian society as governed by certain
strong exchange and 'equivalence' principles. He points out,
however, that there may well be a minority of marginal individuals
who are somehow too weakly established to be within the range
of those principles: they may at times press their rightful claims,
but without success. Panoff shows that the male suicides among
the Maenge occur as a general rule against this background of
ruthless and unlimited exploitation. In fact it is only suicide that
sets a limit to exploitation in such cases. The proportion of
people Panoff places in that category appears to be of the order

171 of 5% of male population.[24]

These people were alienated by the criterion we chose because they had been working for someone who refused them what they considered their proper reward – in other words, the right to the product of their labour. At the same time, we note that the phenomenon described by Panoff was marginal: the other 95% of the male population were not alienated.

It is my impression that there are still other alienated categories in Melanesia, especially among defeated groups or clans who lost their land after a war and are reduced to the status of wanderers or, again, who remained on their land but were constantly at the mercy of marauders. When I discussed such cases, I was told by several informants from different villages independently that there were certain weak groups with whom in olden times they practised no exchanges but had only relations of warfare. Such groups evidently possessed some valued resources – not only women but also feathers and other forest products, for instance, but they lay outside the circle where moral principles applied (cf. Williams 1930).[25]

121 The theoretical importance of such cases may be far greater than their statistical importance. These are, after all, the cases projected by Hobbes in his model of the stateless society. Anthropologists have been much concerned to prove Hobbes wrong, but this concern should not blind us to that minority of situations where he may well have been right. There is not, to my knowledge, any Melanesian ideology which validates and elaborates the Hobbesian model, nor the Nietzschian model[26] that gives full weight to the principle of reciprocity while condemning it as a weakness to be transcended. But is even a Melanesian Nietzsche completely inconceivable?

Identification in the Creation of Exchange Values

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Our discussion of the culture hero Jesus Christ was necessarily incomplete. For he did not institute merely payment for labour – a real gift to man but, as we have seen, somewhat limited in scope, but he also gave to the white man all his immeasurable wealth and power. But this wealth and power did precisely not, in the New Guineans' estimation, come to the European by his own wage labour. It came by methods New Guineans did not at once understand. This whole cargo ideology is too well documented to need restatement here, but any study of Melanesian work would be quite incomplete unless it included the category of cargo work, i.e. work to obtain cargo.

Conclusion

This paper has been an exercise in semiotic anthropology. Semiotics has always been a part of anthropology (cf. Schwimmer 1977b), but we are becoming more conscious about it and borrowing some methods. We therefore set up a domain, consisting of two sets of oppositions (use value/exchange value; identification/alienation) which seemed to be in some need of clarification. We broke the domain down to its modalities and as a result, I hope, clarified a number of Orokaiva concepts of 'work' – all a little unexpected, probably, and certainly not clear to myself until I began analysis in the form described here. Moreover, the two oppositions that formed the frame have become a little clearer too.

Semiotic anthropology has a limited role, but this role is precisely what has been attempted here: clarifying concepts. I might have made up an abstract model from the modalities and the categories but refrained as it would have added little. I have tried to make the connections visible: semiotics does not compose master schemes, it decomposes them.

Notes

101 1. Fieldwork done in the Northern Province of Papua New Guinea (1966–67,
122 1970, 1973) and used as basis for the present discussion was supported
by grants from the Canada Council.

2. This statement was made to me by Councillor Colin in a taped oration
461 held in Torogota in 1966. His words: '*Iji aramiko ambo ainge eaora. Amina*
177 *pure mo umbae. Amora pure re Keriso na ikena umbasi ea avo.*'

3. Melanesian time allocation studies have recently been the subject of a
114 detailed economic analysis (Kirkpatrick 1977). It is of interest that the
field studies of time allocation which were given the highest "subjective
rating" (ibid. Table 6.1) were Waddell (1972) and Waddell and Krinks
(1968). The latter study was conducted in the Orokaiva villages of Ionda
and Sivepe, where I myself did intensive research some years later, on a
different subject. As I have already published a detailed commentary on
the Waddell and Krinks study (Schwimmer 1969: 144–152), I say little
about it here. It is, however, highly relevant to a conceptual study such
as the present one.

● 121 4. M. Panoff reports that *kuma*, in the sense of subsistence activities, took
up an average of four hours per day among the Maenge. He mentions no
cash crops. Kirkpatrick's statistics (1977, Table 6.3) show that the mean
time spent per man on all agricultural tasks in nine Melanesian villages
is about 22 hours per week. One may thus assume that Panoff's figure
refers to all tasks making up agricultural activity in Melanesian time
allocation studies. But what is here meant by 'activity'? As we show in the
present article, it includes not only the main and ancillary agricultural

121 tasks but also travel, rest, meals and miscellaneous "other tasks" – the most mentionable of which are cooking and washing. The phrase "dépense d'énergie" must thus be taken very broadly.

5. The present author's knowledge of Greek antiquity is at undergraduate level. From an anthropological viewpoint, an interesting general discussion of Hesiod will be found in Jaeger (1946). But see also Vernant (1965: 19–47) and Detienne and Vernant (1974: 59–124).
6. The translation of ΔΙΚΗ as 'justice' obscures an interesting difference made in Greek between two kinds of justice. *Themis* (ΘΕΜΙΣ) justice as dispensed by the early kinds and nobles whereas ΔΙΚΗ appears to be a system of dispute settlement by compensation payments to the injured party. The fundamental meaning of ΔΙΚΗ is 'due share' (Jaeger 1946: 103). ΥΒΡΙΣ would then be to refuse compensation and seek justice by force.
7. Vernant's explanation (p. 222) of this classification is as follows: "Dans la perspective de la valeur d'usage, le produit n'est pas vu en fonction du travail humain qui l'a créé, comme travail cristallisé; c'est au contraire le travail qui est vu en fonction du produit, comme propre à satisfaire tel besoin de l'usager . . . Marx écrit, de façon frappante, qu'en qualité de valeur d'échange, la marchandise n'est plus envisagée au point de vue du service qu'elle rend mais du service qui lui a été rendu par cela qu'elle a été produite." (*Critique de l'Economie politique*, p. 32.)

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8. It has been objected that a work of art differs from a taro in that the former is a statement about patterns in the universe while the latter is not. My own view of taros, however, is that in the sense of Hjelmslev, they ought to be regarded as sign as well as substance; as signs, which they are whenever handled ritually, they do contain statements about the universe. On the semiotic issues involved see Hjelmslev (1953), Schwimmer (1977a, 1977b).

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9. For relevant ethnographic data on Orokaiva, see Williams (1928, 1930); Waddell and Krinks (1968); Schwimmer (1967, 1969, 1973, 1974a, 1979a). For specifically semiotic investigations on Orokaiva, see Schwimmer (1974b, 1977a, 1979a, 1979b.)

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10. Searle-Chatterjee demonstrates that group identity among the polluted caste groups remains firm and positive. It appears to be threatened only by the attempted suppression of the notion of caste by the central government. If this should ever succeed, caste identity would be threatened, because public belief in its toughness, hotbloodedness, honour etc. would be lost.
11. While I have learnt a good deal from Parry's fascinating analysis of the Mahabrahmans, I wish to dissociate myself from Parry's comments on Louis Dumont, as it would not be very difficult to reconcile Parry's findings with Dumont's theory.
12. I wish to acknowledge a debt to Mr. Edwin Ardener who suggested this argument to me during conversation at the York conference. He is not responsible, of course, for what I did with it. A rather similar point is made by Dumont (1977: 118, 182).

121 13. This method of setting up semiotic domains for study is probably due to Lévi-Strauss, long before it became canonized as part of the science of semiotics (Eco 1972). See also Schwimmer (1977a), for an Orokaiva example.

14. The term 'manager' instead of the tedious 'big man' is due to Burridge (1969) and is heartily recommended to practitioners.

114 15. I briefly analyzed Williams' Kutubu study (Williams 1976), but missed the full implications of the myth cycle reported by Williams. A reareanalysis of that work, with full use of the myths, is overdue.

16. See for a first analysis Schwimmer (1973), later supplemented by Schwimmer (1974a) (coconut, areca and taro) and (1979a) (pigs).

554 17. A discussion of work specialization among Orokaiva (of which there is
577 but little) will be found in Schwimmer (1967). An interesting type of
305 specialist not so far described is the expert body decorator (Schwimmer 1973: 177, 185) to whom the ritual payment of a pig is due when he officiates, and who appears to officiate regularly at initiations.

114 18. For a full discussion of the concepts involved see Schwimmer (1979a).

19. The text: "*Umo mani ingesoa, eti atimbesoa, i umbesoa, umo timbesoa;*
773 *donda deire tapa amo aisi oa eto tunga osaga umbesoa.' Ainge ena.*
Ainge ivu ta ena: 'Adam, umo ainge hogoro umbesoa, andage aisi oa
777 *eto i gaipi oa, pure firembesi oa; iji vevere tunga osago hamo memega re*
539 *tapa pure gaiha aisi oa.' Ainge ena. Ainge eto ikena avo embo Esve te Adam te ainge ena: 'Ainge dombo dago tapa endata emo ainge do aisi uje eagora: pure te deire amo tapa hamo memega te tunga osaga te tapa pamone ainge ga earora, dago embo ainge hamo memega te tunga osaga te tapa pure gaiha avo earora. Eto donda matu numuga ena avo indie treatera avo. Arevorate, ungo kiaekiae eto God na taekena avo umbuto indie. Arevo embo eto avo God ena: 'Avo iji koso ami tunga osaga iji tunga osaga aisi ove, ainge tunga javatoho iji amo tunga javatoho aisi ove.' Ainge ena. Avo embo dago tapa emo oroho emite ue irora.*" Robert, Sivepe, 1966.

694 20. The text: "*Embo handa pirisi embo na punduto umbuto, sokova ari ke*
754 *eto umbuto, Kokoda pambuo, koto ea, aramiko pure mo aravora.*" Councillor Colin, Tórogota, 1966. After describing a number of devices used by magicians and miracles they wrought, Colin continued: "*Avo da pirisi embo na samani eo pambuto re koto ea, amiko donda aravo porakau aravo pure puvena.*" Translation: Police handcuffed village people and took them to Kokoda if they were believed to be telling lies. Court was held; then they would start work . . . When a summons was issued by the policeman, then those magic things would be put to work.

245 21. At the time the Waddell and Krinks study was done, only the younger men grew coffee; the authors therefore saw a correlation between age and coffee growing. During my restudy I found this correlation to be false, first because it did not apply to the clan omitted from the earlier authors' chosen sample, and secondly because the oldest men they studied began to grow coffee shortly after their departure. The substitution of German taro (*xantosoma* sp.) for classical taro (*colocasia* sp.)

245 appears to be the standard response to lack of time, rather than foregoing coffee.

177 461 22. On New Guinea concepts of paid labour and the yield of such labour I learned a great deal from Cloutier (1975–1978).

121 23. Auge's material on the rich who were inevitably suspected of being zombie masters (1975) is a good illustration of our theme. But on this same phenomenon, see also Ardener (1970).

191 24. For a somewhat similar analysis of suicide, this time in Polynesia, see Firth (1967, Ch. 5) on suicide and risk taking in Tikopia.

25. For a further example of 'exploitation' of the defeated see Meggitt (1977: 25–26).

121 26. In *Zur Genealogie der Moral*, Nietzsche (1954: 761–900) offers a detailed discussion of the principle of reciprocity, concerning which he held views rather radically opposed to those of Marcel Mauss. He regarded it as a delusion to be eradicated. Orokaiva likewise regard it as a delusion if practised outside the 'security circle' (see Schwimmer 1979a).

472 474 27. This argument, and indeed this entire essay, is close in orientation to Dumont (1977) which can be read as an attempt to set limits on economism in anthropology and elsewhere. We do not question the importance of economics but the delimitation of economics as a separate domain.

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